MULTIPLE PATHWAYS IN THE EMERGENCE OF COMPLEX SOCIETIES IN THE GANGA BASIN: 2500 BCE TO 600 CE

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CERTIFICATE

This is to certify that the dissertation entitled **"MULTIPLE PATHWAYS IN THE EMERGENCE OF COMPLEX SOCIETIES IN THE GANGA BASIN: 2500 BCE TO 600 CE"** submitted by Mudit Trivedi in partial fulfilment for the award of the degree of Master of Philosophy (M.Phil) of this University, is his original work. This dissertation has not been submitted for the award of any other degree of this University or of any other University and may be placed before the examiners for evaluation.

Prof. Neeladri Bhattacharya

(Chairperson)

Prof. H.P. Ray

(Supervisor)

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CONTENTS

Introduction

The purpose and project of this dissertation is the long-term archaeological history of the Ganga plains, with a focus particularly on its implications for the period that has been designated and recognized as that of the massive phase of urbanization during the ‘early historic’. This is a phase that is critical to our understandings of Ancient India and our understanding of archaeological cultures and historical developments hinge critically upon how we understand the evolution, coming into being, development and nature of the urban societies that came to exist in the northern plains from what is consensually believed to have been the sixth century BCE onwards. The major hypothesis and frameworks which structure and inform our understanding of these developments are layered and draw upon many intellectual traditions.

While seminal breakthroughs and insightful contributions have at many turns furthered our knowledge of the emergence of cities, states and as it has been framed of an historical era itself, much of what is accepted today continues to borrow from and remains arguably predicated upon hoary assumptions and received wisdoms rather than a critical examination of the evidence. It is a central theme in this dissertation that such an engagement with the history of past societies is fraught with danger unless we examine the intellectual predispositions and preconditions within which previous knowledge on the subject has been produced. Thus, this dissertation opens with a full length examination of the paradigms and defining characteristics of our knowledge on ancient India. Specifically, this is an examination of the manner in which the fields of ancient history and archaeology have evolved in the subcontinent, in the post-colonial era, something often not treated in the literature which considers the contexts of such academic practice. Both fields, of the writing of ancient history and the praxis of archaeology present their own unique trajectories within the Indian academy and relate to each other intimately, as the most difficult of bed fellows. The first chapter thus argues that our extant histories and understandings of the ancient Indian pasts are constituted by an overbearing tension between these two massive corpora of evidence, of textual traditions and archaeology. This is a problematic which is then traces in the subjectivities which inform the archaeological history of the Ganga plains, and the argument is made that indeed, the archaeology of the northern subcontinent has not ever been considered on its own terms.

Having argued thus, the dissertation shall try and demonstrate this claim by presenting a first and necessarily provisional attempt at just such an evaluation. The principal and fundamental pillars of archaeological reason being context and distribution: these are taken and writ across the landscape.

Despite the fact that meaningful and truly massive archaeological data has been collected from across the subcontinent these have rarely if ever been systematically collected or analysed. While local and sub regional level studies have been conducted which synthesize the data at such a scale, there has never been a consideration of the archaeological distributions over the scale of the northern subcontinent. To attempt this first a gazetteer was created which synthesizes and provides by district a catalogue of all archaeological sites for each area. The resultant consideration of the long-term archaeological trajectory as well as a creation of a preliminary and basic atlas of north India upon this dataset forms the matter for Chapter 3.

Chapter 2 provides a brief engagement with the manner in which such landscape level archaeological data has been treated and lays out the theoretical positions and debates which this dissertation draws upon. Chapter 3 provides an extensive engagement with the archaeology of the 'Ganga Basin' as it is defined therein and is a first attempt towards the reconsideration and re-orientation of the archaeological history of this region. The principal arguments made in this chapter provide a strong case for the need to look at the evidence afresh and contemplate the multiple traditions which are at work in the emergence and formation of complex societies in the region. In the study of this region, it comes to argue that there is a need for a new cultural history and a new theoretical apparatus which can answer to the trends and patterns of the evidence. On the count of understanding and evaluating the emergence of 'complex societies' and 'urban systems' this chapter concludes by positing preliminary alternatives which are argued to better represent the transformations and the social processes which animate them.

The second half of this thesis breaks with the first in the matter of scale and narrows down the region of interest to a small region, one which has been crucial to the debates on the Ganga Basin. By concentrating on the Kausambi region it focuses the questions raised in the first half of the thesis upon this small and crucial region. Kausambi is special as we have the blessings of the details of extensive excavations as well as a regional survey data. A fourth chapter here brings into focus the changing concerns of various archaeologists who have worked at the site, and serves as a synthesis of available information on the site, providing a narrative for the manner in which knowledge has been produced and consumed about the site over the course of the long twentieth century. As Chpater 4 demonstrates Kausambi indeed can serve as a metaphor for the most difficult and tortuous constructions in the writing of Ancient Indian history.

Chapter 5 represents the methodological conclusion of the idea behind this thesis and attempts to generate new and meaningful perspectives about the site of Kausambi by conducting a surface survey of the site. The engagement with Kausambi is taken to another level and into the field and

this Chapter presents the results of systematic survey which covered a sample of a total area of 900 hectares centred upon the vast site. This is an exercise in systematic and detailed surface archaeology which is attempts to recontextualize the site and address its archaeology afresh. This chapter is also an exercise in demonstrating how survey methodologies in Indian archaeology need to change and how relevant and much needed data about the evolution of large and complex sites can be generated from the adoption of relevant survey strategies.

Finally, a conclusion presents a few final arguments which stress both the arguments which this dissertation is believed t have made with some conviction and further also qualifies and stresses the limits which are placed on some of these positions.

Chapter 1 : Paradigms and Problems in Indian Archaeology

Contents

> Hitherto to be regarded as a scholar or Indologist or what-not one had only to stuff one's dissertation full of Sanskrit words and quotations and add a few tendentious quasi-deductions of a highly speculative nature, and the resulting hotch-potch of muddled and wishful thinking passed for archaeology. This phase is passing, though it dies hard.[1]

Writing in 1945, in the course of a vitriolic outburst against the state of affairs in research into ancient India, D.H. Gordon made a succinct series of acute observations about what in his opinion plagued the study of ancient India. What is central about the quotation and worthy of attention are the links he makes between Indology, textual criticism and the rules that govern such inquiry and their relation to the field he identifies as archaeology. Gordon thus expresses and brings to attention the essential tension between text and archaeology in the pursuit of the subcontinent's ancient pasts. He notes with not unmixed emotion, though with a reluctant hopefulness, that change in the consideration of such matters is immanent. Between 1945 and 2008 the manner in which ancient Indian history is perceived, approached and its main themes understood has indeed changed dramatically. This chapter examines these changes and attempts to look at what has become of the essential tension which Gordon highlighted.

[1] D.H. Gordon, The Problem of Hiatus in Indian Archaeology, *Man*, Vol. 45. (Jul – Aug, 1945) pp. 94

Historiographies and Histories: Changing phases in the writing of Ancient Indian History

It has been argued that the modern historiography on ancient India may be conveniently understood as having been produced under two governing paradigms, each underscored by considered political agendas and thus producing narratives which met those ends. The Imperialist and colonialist histories of ancient India produced over the 19th and 20th centuries respond to colonial stereotypes and discourses in many ways. It has been argued that they serve as historical rationalizations for the imperialist project and provide justifications of colonialism in the name of progress and the benefits of modernization. The most oft-cited and easily demonstrated arguments for such a history are those of Vincent Smith[2] and more broadly that by J.S. Mill. Countering this, the histories produced by early Indian scholars such R.C. Majumdar and others have been characterized as being Nationalist.[3] Driven by the urge to produce of ancient India which did not present a picture of a country given to backwardness, decadence and open to invasion and foreign rule, both ancient and modern, these scholars narrated a different past. In this ancient India, was a variously grand and pedigreed civilization. It was at par to if not superior with the hallowed Greco-Roman past and the narratives provide a veritable list of ancient achievements to establish this. Ancient and primordial Vedic democratic ideals, magnificence in art and culture and even Imperialist projects of one's own sought to portray a past which could allay the anxieties perceived in the present.[4]

Such arguments while liberating and powerful also are prone to the problems of generalization and over-simplification. Additionally, they do not usefully comment upon what the two traditions shared in terms of methods and assumptions. It has been argued that a tripartite configuration of south Asian history into Hindu, Muslim and British periods was born as an important device of the Imperialist school and found seamless assimilation into the Nationalist school. Both schools presented a version of history which accepts a decline and decay of 'civilization' and 'values' which attends upon the historical change from the first to the second period. Methodologically the two are also closely and seamlessly assimilated within the fold of Indology, which can be characterized as having been the discipline of the detailed, richly empiricist and positivistic study of the ancient textual traditions in the belief that they serve as the best route to an understanding of south Asia's ancient pasts as well as a greater civilization core.

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[2] Vincent A. Smith., *Early history of India* (Oxford, Oxford University Press, 1924.)

[3] R. C. Majumdar, *An advanced history of India* (London : Macmillan & Co., 1946.)

4 This summary of this position has been taken from a number of sources but as discussed most fully in Romila Thapar *Ancient Indian social history : some interpretations* (New Delhi: Orient Longman, 1978). This discussion has in fact been seminal in standardizing this view of the development of Ancient Indian History as a field, which like any narration suffers from biases of exclusion and prejudice.

The creation of such a practice and discipline is something that has had far-reaching consequences and has in its wake produced an entirely paradigm of approaching south Asian pasts. Implicated in this are not only notions of what still are very ill-understood traditions of indigenous and existing notions and the manner in which they complicate and inform these latter-day histories. Such notions and intellectual traditions of history underwent a complete transformation if not annihilation in the wake of the production and circulation of attitudes towards the past which were premised on twentieth century western notions of modernity and the mixed bag of organising schemes and tropes which it brought in its wake such as creed, race and the idea of 'civilization'. While the tripartite schema of the development of ancient Indian historiography has served to clarify much, its own narrative serves as a justification of the post-nationalist phase. This transition has been far more tortuous and complex and methods and paradigms have only changed slowly. It can indeed be argued that the tripartite division itself serves as a legitimization of the claims which the modern narrative makes for scientific, impartial and progressive histories of Ancient India, which have in fact more complicated passages in the intellectual sphere beyond limited circles. A consideration of these passages in the transforming paradigms of the study of ancient Indian history is not possible here but my purpose has been to demonstrate that a more complex history exists and that the dividing lines may not in fact be all that clearly defined.

In summary, at the time of Gordon's outburst, there existed a standard practice of valourizing the textual traditions of ancient India as the primary and most important route to the past. A political narrative had largely been constructed through painstaking epigraphical work and an increasingly voluminous historiography sought to narrate the political travails, the 'arts and culture' and the 'society and economy' of various regions and times. The main purpose of this chapter is to outline that while the study of ancient Indian history and archaeology have both undergone profound and dramatic changes, these have rarely been discussed or interrogated for the manner in which they construct the past as well as what they inherit and share from the intellectual traditions which Gordon was fulminating against.

Ancient Texts and Modern structuralisms

The most noticeable change in the projects of writing histories of ancient India that comes about is in the transformation of the exercise from one within an Indological realm, i.e., as an exercise within the parameters of textual criticism and historical speculation, to one which was concertedly engaging with and transforming itself into a social science. This is journey that has not had much academic literature attend to describing this major transformation, but a clear shift in the concerns

transforms what was hitherto a nationalist and 'conservative' historical exercise into an exercise of inquiry into society and change often inflected by the progressivist inclination of the 1960's and 1970's and the same inclination of some of the most influential historians of the time. While a detailed history of this transformation is beyond the scope of this chapter, the following discussion hopes to elaborate the manner in which this tradition both broke with and at the same time continued to share crucial elements from the extant body of scholarship.

Amongst the most influential of early authors a trilogy emerges fairly clearly of those who contributed most seminally to the forging of a new approach towards the study of ancient India. These were D.D.Kosambi, R.S. Sharma and Romila Thapar. They are grouped here and highlighted amongst a whole range of others whose contributions are equally important, for the reason that they produced whole bodies of literature which allow one to look at their thought and their writings in the form of an entire corpus. In the course of the 1960's each of them produced a monograph which sought to relate their readings of ancient Indian history as informed by their own interpretations of historical materialism. Kosambi's *An Introduction to the study of Indian history* and *The culture and civilisation of ancient India in historical outline* have proved to be seminal and inspiration textbooks and to this day reward the reader with fresh insights.[5] Thapar's *A history of India* was to become a central textbook and came to be the standard single volume introduction on the subject, arguably replaced only when it was re-written by the author herself as *Interpreting early India*[6]. R.S. Sharma produced a series of articles making trenchant interventions and declaring that "historical materialism can provide the only scientific approach to the investigation of ancient Indian social structure"[7]. While there are significant and meaningful differences between all three, the present discussion focuses centrally on Thapar and Sharma and attempts to deconstruct the methods with which their new histories were produced as well as the assumptions they lay upon.

Sharma's declarations of an engagement with historical materialism were rooted in an engagement with some of the most basic and fundamental texts of that tradition, even while the application of the theory itself had by this time attained more complex and debated forms. Sharma's work is replete with references to the first and most foundational materialist, Lewis Morgan, as well as to

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[5] While the work of D.D. Kosambi was and remains crucial and seminal, this chapter examines the work of Thapar and Sharma for the reasons that for the North Indian region they have provided the most significant and extensive bodies of work. Kosambi, D. D. (1975), *An introduction to the study of Indian history* (Rev. 2d edn.; Bombay: Popular Prakashan) lxix, 415 p. And (1970) *The culture and civilisation of ancient India in historical outline* (Delhi,: Vikas Publications) xi, 243 p.

[6] Romila Thapar, (1965), *A history of India* (Baltimore,: Penguin Books) and rewritten as Romila Thapar, (2003), *Early India: from the origins to AD 1300* (Berkeley, Calif.: University of California Press) xxx, 555 p.

[7] R.S. Sharma, *Sudras in Ancient India*, Delhi 1958

Engels, who too drew heavily upon Morgan for his theories of the origin of private property and the state. Thapar's work may be characterized as more moderated in its theoretical predilections in its earlier stages but is equally forceful for the need to re-orient the focus of ancient Indian studies. A call is thereby given to move away from political histories of kings and empires and dynasties to a social history focussing on "meaningful periods and episodes of socio-economic change".

This emphasis upon re-orienting the periodization led to a creative re-engagement with ancient India and the formulation of new thesis which then formed the basis of a new narrative. For this it is notable that both Thapar and Sharma remained firmly within an Indological tradition of textual engagement while constantly broadening and redefining the terms with which they proceeded in this exercise. The role and development of archaeological knowledge as it was being produced in the same period, which shall be subsequently discussed, was notably not the primary basis for their narratives. Instead, both Thapar and Sharma turned to their texts to provide a new history, and in doing so while bringing entirely new approaches to the study of ancient Indian literature they also inherited and continued in a long tradition of such interpretation. While they innovated in the interpretations they chose to make of references to social groups, classes or of customs and rituals to texts they also thus were equally part of a long tradition of producing historical sociologies from the reading of a text. Integral to such a project is the belief that the text, while being the primary remnant of a complex culture which produced it, contains within it all that is necessary and required to reconstruct the world of its authors. Thus came to be blended a new historical materialism with a positivist engagement with a complex body of textual data.

Sharma's historicist vision was of a more mechanical march; technology and progress, social strife and social change were all pre-ordained and epicyclical. The challenge of the ancient Indian historian then was to delineate the main instances of transformation, the manifestations of such conflict and to describe the manner in which societies functioned at each stage. His materialism thus spoke the language of social contradictions and of the imbalance between the forces of production and their concomitant social relations of production. His books epitomize the course of ancient India through these cycles, slavery needed to be examined as an aspect of the primitive mode and thus he first turned his attention to a study of the Sudras. The work of the ancient historian was to isolate the key unit of production, the locus of emergent and final contradictions and these are synthesized in arguably his most representative work – *Material cultures and Social Formations* where he puts forth his own understanding of the rise of chiefdoms, their socio-economic contradictions which are eventually cast asunder by the rise of Iron technology, the state and class society. To complete these

examinations of social structure Sharma also provided consistent interpretations of the super-structural or ideological realm – his most important thesis here being that Buddhism was a reaction emerging upon the wasteful logic of the chiefdom economy.[8]

Thapar's work has been more subtle and less devoted to the essential principles of a mechanical materialism while still being committed towards a new delineation of the essential and major movements of socio-economic history. It may be seen to fall more broadly under the umbrella of social formations theory, i.e., the belief that all societies in each period are characterized by essential structures which govern their social structure, inform their culture and are a major factor in laying the preconditions of their history itself. When change occurs, it is on a massive and systemic level and it occurs in episodes where the entire basis and organisation of societies change and they are entirely recast and remoulded. In a sense, social formations theory has a wider structuralist logic than a mechanical and reductive framework than the sort of historicism that a skeletal understanding of modes of production can lead to. Specifically, while Thapar never directly relates to the Althusserian sense of the term, it is clear that it is chosen for the same reasons. Social formations theory emerged as wider tool for Marxian social analysis as it allowed for the bundling of the cultural, economic, legal, political and social structures of a society as one whole, all rooted in a connected and meaningful way through the role of an ideology maintaining the present system of social relations. It is important to highlight this for it has structures Thapar's work in many ways. Once a narrative was produced, with a primarily technological argument for the rise of the state, and a diffussionary explanation for its spread and proliferation other inquiries into the socio-economic or other conditions of those societies were comprehendible in terms of their inter-relationship.

This is a point which needs attention as it is an approach which marks the pathway for a whole range of thematic studies which Thapar then engaged in. Once the major socio-economic narrative of ancient India was in place, other developments necessarily co-related with these in the manner of the base to the superstructure. Yet, it was perceived that these relationships needed further theorization and this is where Thapar, unlike any other historian of her generation, sought to first articulate and then respond to this perceived 'poverty of theory'. The resultant monograph, *From Lineage to State*, represents better than any other the dilemmas and the limits of such a project. Having already predicated her entire narrative upon the sociology of the Vedic corpus, a need to better theorize the dynamics of societies is articulated. This tremendously influential monograph is one which is based on a remarkable pastiche of theoretical arguments, all borrowed from

[8] R.S. Sharma, Material Culture and Social Formations, (Delhi, ,1982)

sociological literature current at the time and transplanted into the context of the upper and middle Ganga plains. A remarkable narrative welds together Polanyi's theory of a householding economy with that of a lineage society, and the eventual grounds for the birth of the state are seen to arise in a situation of environmental circumscription in the 'densely forested' Ganga plains akin to Carneiro's situation in the valley of Mexico. While the manner and the persuasiveness of this theorization of the social structure and its changing moments have been questioned the most important aspect of this work arguably is the manner in which it completes and reformulates a unitary grand narrative on the origin of the state, its preconditions and its further development.[9]

It is the principal thesis of this chapter that much that has been produced in the guise of ancient Indian history must be recognised to be a *meta-narrative*. By terming it thus, we are allowed the space to recognize it as a particular paradigmatic product and are granted the space to examine its discontents and inconsistencies and the manner in which the parts relate to the whole. This meta-narrative is one where origins and further, a clear and universal theory of origins, are of the utmost importance. In its theories of historical change, change itself is understood as unilinear and carries a directionality which casts the fate of society in that direction alone, while those who remain distinct and different thus become either primitive or as atavistic. In the quest for producing this narrative of meaningful socio-economic change and of periodization along those lines the anxiety to produce a continuous narrative become central to this quest as well. Thus while the textual record may be highly discontinuous the historical explanation based on it is not and its explanations of the trajectories of historical change are continuous. A major consequence of this has been the ability of this new ancient Indian history to be able to speak solely in large units of time and space, thus fostering a more broad and sociological consideration rather than one which is grounded, limited and specifically historical.

Further, as a consequence of the inevitable reliance of this meta-narrative upon the written word, its theory of historical time and even historical worth is premised upon the same criteria. Thus 'history' is of a time particularly different in all manners from 'pre-history'. The proto-historical is a concept invented primarily to stress this divide, articulating the basic conception that literate societies are different and more natural subjects of history, while all the rest are merely a prelude and may be considered as thus when considering a theory of origins, or tracing the development of social complexity. This can be argued to be another form of the 'enormous condescension of posterity', to use a famous phrase, as the most dominant of narratives about ancient Indian history have no space

[9] Thapar, Romila (1984), *From lineage to state : social formations in the mid-first millennium B.C. in the Ganga Valley* (Bombay: Oxford University Press)

nor much concern for any of the archaeological cultures that precede the presumed period of the Vedic texts. Thus in a sense, history is here, and it rides with the Aryans. Prehistory is elsewhere and whilst developments may attend various localities of the pre and protohistoric these are not meaningful and have no bearing on the course of History.

In summary, the extant meta-narrative of ancient Indian history is one which is premised on an unwarranted emphases upon the interpretation of certain texts and bases its historical vision upon a heightened form of the divide between literate and pre-literate cultures known solely from archaeological evidence. Linked to the paradigmatic vision provided by Social Formations theory is the place of the embedded analysis or reading of the texts under consideration. The texts are thus considered as products of these societies these texts bear inscribed within them traces which represent the essential social and economic bases of their own organisation. The task of the historian in such a project is then understood as recognizing these markers and explicating the forms of organization and societies which they represent. This historical vision has been essential in the manner in which the seminal monographs of the meta-narrative have understood and approached their texts. More recently, there have been a number of efforts which seek to understand and place the texts they are based upon differently and examine their construction and the place of ideology and location in these enterprises more centrally[10]. However, it is the argument of this dissertation that without a full-length attempt at deconstruction and an awareness of the problematic nature of the meta-narrative all such attempts run the risk of unknowingly inheriting many assumptions.

Finally, an important consequence of the manner in which the meta-narrative has been constructed lies in the ratification and reformulation of many tropes as central to early Indian history. The most significant and the most binding and limiting of these is the Aryan thesis, which has been reformulated so as to extend to becoming, despite all and any qualifications, the major force in ancient Indian history. Chiefdoms, monarchical kingdoms and then States all emerge within the fold of the migrating Aryan clans as does the rise of Iron technology. Further, it is only when empire is fashioned out of these early states, it is only then that the rest of the subcontinent and its various pre-historic and proto-historic cultures move into the fold of history, via contact and through secondary state-formations. It is thus that the meta-narrative in its quest for unilinear and

[10] K. Roy, (ed.)*Women in Early Indian Societies*, (1999, Manohar, New Delhi) and Uma Chakravarti*, Everyday Lives, Everyday Histories: Beyond the* Kings *and Brahmanas of `Ancient' India,* (New Delhi, India : Tulika Books, 2006. - xxx, 328 S) serve as two examples of how the construction of the metanarrative is such that it does not allow for a discussion of themes of identity and those of gender and its relation to History. I argue here that while these studies have provided a body of literature which relates strongly and agrees in key understandings with the metanarrative they have provided some of the strongest arguments in favour of the need to develop new methodologies to study texts.

progressive change ties down its principal thesis of historical change to one of Aryanization, albeit reformulated.

Of Darkness and Light: The Key questions before Indian Archaeology in 1947

The trajectory of Indian Archaeology since Independence is a subject which is complex and layered and the last decade has seen a burgeoning historiography attend to various aspects of it.[11] While the role of Wheeler's pervasive legacy is understood as being omnipresent it is the peculiarly post-colonial status of the discipline that throws up some of the most enduring points of rupture and tension for the discipline. The essential point of entry for archaeology into the new nation-state was framed by Wheeler as a task of matching two known points and of bringing light into the Dark Age[12] which separated the Harappan civilization from that of the Early Historic in the Ganga valley, as marked and defined in his own terms by the unique and distinctive NBPW, which he placed to c 500 BCE. In this section an attempt will be made to demonstrate how this has been a binding influence on Indian archaeology and how in terms of methods, planning and interpretation, Wheeler's legacy and the claims of 'tradition' have been equally powerful forces which have arguably led to a situation where material cultures have been routinely considered and evaluated on grounds other than those which would have inhered within themselves.

There are some specific aspects to Wheeler's formulations which give impetus to the scholarship that follows. Wheeler's characterization of the end of the Indus civilization is infamously sudden, drastic and probably the most graphic interpretation of invasion ever suggested for the period under question. His association of the Cemetery-H culture with invading Aryans too is landmark as it explicitly lay the foundations for future inquiry to search for material and more specifically ceramic cognates of invading and migrating Aryans. Most important, however, are the pegs this notion of a dark age rests on, only one of them being a decidedly material one that of the Harappan devolution and its end. It was between the Aryans and Alexander then, that the clues for the reality of the Vedic period and its people were to be searched:

> What was the material background of the Vedic hymns? What part if any did the Indus cities, representing one of the great civilizations of the ancient world, play in the formation of

[11] D.K. Chakrabarti, *Archaeology in the Third World : a history of Indian archaeology since 1947* (Updating Indian Archaeology series; New Delhi: D.K. Printworld,2003) provides a narrative and an outline of what were perceived as the key debates, seminal monographs and an evaluation of the careers of the prominent archaeologists. H.P. Ray, *Colonial archaeology in South Asia : the legacy of Sir Mortimer Wheeler* (New Delhi: Oxford University Press, 2008) provides a much needed full length examination of Mortimer Wheeler's legacy.

[12] The question of the Dark Age was formulated in such a manner that within a decade a number of the most influential scholars, including R.E.M. Wheeler, B.B. Lal. D.H. Gordon and S. Piggott had all published at least a couple of articles on the subject.

> Indian civilization of later ages? Of what sort were the Aryan Invaders? Whence and When? These are the questions in which the problems of India are integral with those of greater asia, but they are also questions to which Indian scholarship may be expected to provide an important part of the answer. Any further substantive advance is unlikely until Indian field exploration, carefully planned and executed, provides fresh material evidence. [13]

Wittingly or unwittingly, much of Indian Archaeology has responded to the tasks Wheeler outlined here and in pretty much the same terms. Further, it is worthwhile to outline that Wheeler in the same note, outlined the need to work back from the Persians, or from the known provenance of NBPW from Taxila to the Harappans in order to generate 'a grammar of Indian archaeology'. Wheeler went on to stress that while ultimately the detailed study of these cultures was the ultimate aim, the present need in 1949 was 'that of systematizing the protohistoric and early historic cultures of India'.

There are many dimensions of this manner of framing the essential questions of Indian archaeology which call for discussion. Central amongst these is the essential place of the Aryan question, whatever its specific form may be. Further, the jigsaw puzzle of culture-historical archaeology which needed straightening out and filling in remained bounded on all sides by known and differently evaluated cultures. Much can be said about the many biases of the term 'civilization' and the baggage it brings with itself, especially as it was used in the 1940's and 1950's. Thus the problem of Indian archaeology was of finding out and filling in the petty remains of the Dark Age, bracketed in as they were between the undoubted pedigree of the Indus civilization, the civilizing presence of the Persians and the Greeks in the Early historic period and paradoxically accompanied and constituted by the greatness of Vedic civilization. These paradoxes and efforts at cultural ranking have proved to be amongst the most tortuous of questions for Indian archaeology.

Arguably, owing not only to the spectacular nature of the its discovery, but also to its perceived complete elision from traditional accounts of the Indian pasts, and from the range and vibrancy of its material culture – the Indus civilization was readily thought of as a great bronze age *Civilization*. The consideration of its material remains thus occupied a unique status, its archaeology was thus canonized and privileged. Owing to the initial discoveries of other prehistoric cultures and the early radiocarbon evidence that they afforded it appeared that all such cultures evolved in the wake of the devastation of the Indus civilization. Thus the meta-narrative became central to the historical emplotment of the grammar of Indian archaeology, the talk was either in terms of refugees or invaders or in the course of time, more subtly of late Harappans and Aryan migrants.

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[13] M.Wheeler, 'Archaeological Fieldwork in India: Planning Ahead', *Ancient India*, No.5 , 1949, pp. 1-4

In terms of material culture, Indian archaeology did evolve specific and strategic devices in the attempt to systematize and classify the bewildering diversity of cultures that even the first 10 to 20 years of archaeology in Independent India had served to document. As a recent discussion of the history of Indian archaeology in this period points out, the attempts to synthesize and integrate this data whilst producing an archaeology based narrative were few but epochal and monumental, quickly acquiring touchstone like status for reference and guidance.[14] It is noteworthy that even Subbarao's account begins by admitting 'our knowledge consisted of an incoherent mass of well observed and ill-observed data without a link, and collected without a purpose.'[15] It is the act of systematising and of producing the rules of Wheeler's grammar that is thus so significant for the patterns with which Indian archaeology has generated meaningful interpretation. The first of these has involved the category of the protohistoric, born out of the problematic relation to the word and imbued as has been argued above, with a status of less than civilization. Thus, it has been designated as an aftermath or as a prelude, as Chalcolithic or if the situation was more complex in terms of these unilinear trait based criteria as Neolithic-Chalcolithic, or further still as to make the disconnect even clearer as 'Neolithic-Chalcolithic beyond the Harappan orbit'[16]. In generating this manner of classification, the focus thus was upon diagnostic and marker traits which set cultures apart from a Stone Age background into a copper using Chalcolithic. The corollary to this stagist and metallic view of social evolution was the inscription of Iron Age as coterminous and coeval with the Early Historic, something which also came to be coeval with the Northern Black Polished Ware. This concatenation of various socio-economic markers, crucial to the evolutionary ladder and the interpretative schema has remained one of the most disputed and tortuous episodes of early Indian history especially given its strategic and critical incorporation into the meta-narrative.[17]

In terms of basic recognition and the description of cultures then, Indian archaeology was given a direction which set it upon a path of a culture-historical understanding predicated towards the mapping out of 'relatively primitive cultures' of the Chalcolithic and Neolithic stages as known between two end points. It is argued here that then, paradoxically, the archaeology and material

[14] D.K. Chakrabarti, *Archaeology in the Third World : a history of Indian archaeology since 1947* (Updating Indian Archaeology series; New Delhi: D.K. Printworld, 2003)

[15]B. Subbarao, *The Personality of India*, (Baroda, The Maharaja Sayaji Rao University of Baroda Press, 1956), p. 1

[16] B. Subbarao, *The Personality of India, H.D. Sankalia, The prehistory and protohistory of India and Pakistan (New edn.; Poona: Deccan College, Postgraduate and Research Institute, 1974)* and even D.K. Chakrabarti, *The Oxford companion to Indian archaeology : the archaeological foundations of ancient India : Stone Age to AD 13th century* (New Delhi: Oxford University Press, 2006) frame the issue in this manner

[17] Witness the debate on Iron as anthologized now in B.P. Sahu (ed.), *Iron and social change in early India*, (Delhi ; Oxford : Oxford University Press, 2006.) (Oxford in India readings. Debates in Indian history and society)

cultures of these communities never really became a concern in evaluating and understanding their culture. From trying to devise a grammar, Indian archaeology rapidly came full circle, and began speaking in consonance with the limiting rules of the grammar instead and still today is chained to culture-historical labels which are increasingly inadequate for describing cultural phenomena. It is the argument of this dissertation that a significant revisitation is possible, and is attempted, the first part of which is a deconstructive exercise like the present.

The discussion hitherto has centred upon the manner in which the praxis of the interpretation of archaeology in India played out. However there are other episodes in this debate which merit attention and call for speculation. The first relates to the manner in which Indian archaeology has chosen to generate its data and the debates, if any, which have been implicated in this. Recently, the growth of reflexivity and discussion about the nature of the archaeological enterprise and the choices and decisions that are implicated in any project have launched a series of introspective accounts.[18] Implicated in such accounts in both England and India is the figure of Mortimer Wheeler and his program of box-trenches focussing on the detailed and meticulous reconstruction of sections and thus chronology. This aspect of Wheeler's system has often been seen as a root of some of the problems of Indian Archaeology and thus merits some discussion. Wheeler's school of archaeology at Taxila and his early Technical section articles in the first few issues of *Ancient India* are as explicit a pedagogy of these methods as could have been possible. Something that criticisms of this infamous Keyhole system have missed however is the fact that Wheeler's programme was directed towards the immediate need of Indian archaeology, as he perceived it, of a verified and comprehensive chronological sequence of cultures. Wheeler, in fact, addressed the future need of more widespread, large-scale and vertical excavations many times, insisting that they too were equally important but would make most sense after the first project was completed.

While Wheeler may have had a future plan, his students at Taxila carried away with them what he had demonstrated and described so well. In the course of his writings which sought to serve as theoretical reminders of the manner in which archaeological excavation could be most profitably conducted with these aims Wheeler often wrote about how for the purpose of good cultural index it was most desirable to lay a long and uninterrupted trench across the highest part of the mound, a technique quite independent of his other systems of excavation. If anything could describe B.B. Lal's archaeology at Hastinapur and then at Kalibangan, Ayodhya and at Sringaverapura, this would be it. This discussion of archaeological method would like to bring two clear consequences into focus. Wheeler's own program of publication, which was aimed at serving the documentation of his

[18] Best represented by Gavin Lucas, *Critical Approaches to Feildwork: Contemporary and Historical Archaeological Practice* (London, Routledge, 2001)

primary aim, of the stratigraphy and chronology of sites and cultures thus too has a very specific goal and was not something he had advised as the model for all excavations. Specifically it answered to the needs he so articulately elaborated so very little need for the publication of plans, or of the discussion of finds relative to their spatial context on their own horizons. This is something that the praxis of Indian archaeology assimilated and veritably institutionalized. Unfortunetly, this has meant a severely limited scope of discussion and consideration of the material evidence, as artefacts are extracted from their social contexts and understood and thought of as only items with a temporal context.

A second and unintended consequence of Wheeler's paradigm was its generalization and what I would term its attenuation. Wheeler was known equally for his high standard of recording and documenting, no matter how little of it was actually used in understanding the worlds the keyholes opened up. His systems of recording were scrupulously followed in the early years and still are extant datasets which have not been fully considered. Over the years the praxis of this system has attenuated and decayed. At the same time, it is important also to recognize the diversity in Wheeler's excavation strategies, something which few have and Gamble points to in his discussion. Wheeler's long trenches aimed at making sense of fortifications and his concomitant occasional program of wall chasing were also part of the ideas and legacies he left behind in South Asia. Drawing upon this latitude and the exigencies of various situations, especially in excavation projects which were sustained over many seasons, this discussion would like to draw attention towards the extremely large areas that have often been excavated over the last fifty years. The issue is cause for discussion only because reporting strategies and concerns have remained attuned largely to Wheeler's paradigms of section drawings and context has remained a dimension of time and not social space. The contrast in what can be achieved is made stark and clear by the few alternatives that have been adopted. The work of the Deccan college[19], while not always in the area under discussion in this dissertation has focussed upon large vertical open-areas and has provided for a reconstruction and discussion of parameters and organisation of social life on a completely different order. Importantly, the sole such example in the North Indian context comes from within the German school, noted for its opposition to Wheeler's methods even in Europe and a source for alternative methods even within the British archaeological tradition. To this day, the work of Hartel at Sonkh[20], remains arguably the only detailed index of spatial and artefactual change recorded and

[19] For an example Sankalia, Hasmukhlal Dhirajlal, Subbarao, Bendapudi, and Deo, Shantaram Bhalchandra (1958), *The excavations at Maheshwar and Navdatoli, 1952-53* (Deccan College Research Institute and M.S. University publication; Poona,)

[20] H. Hartel, *Excavations at Sonkh 2500 years of a town in Mathura district*. (Berlin: Dietrich Reimer Verlag, 1993)

published in a detailed level by level format over a designated 'open area'. While there may not have been a paradigmatic break, there have however been many instances where extremely large areas have been excavated. Further, it can even be argued that the standard mode of archaeological praxis, especially under the aegis of the ASI has been to excavate larger areas than those which its recording and more particularly reporting procedures, as institutionalized after Wheeler, can do justice to.

Culture and Explanation in the traditions of Indian Archaeology

Culture-historical archaeology has an inevitable positivism about it. It answers in yes or no and it maps in wholes, ignoring and covering over overlaps, blurred distinctions or other such mixed conditions of reality. A culture can be defined with ease, ceramic types decorations or forms, form a primary basis and other elements may be selected to fit the expectation of its expected place in the schema of ages. Once a culture is thus defined it may be indefinitely identified at other sites and thus replicated. It is from such an outlook and recognition of these limitations that the earliest opposition to alternative formulations of the archaeological project are voiced. These serious limitations to the manner in which Indian archaeology has been conducted have not gone unchallenged or uncontested and if one is to consider the ways in which the India's archaeological history has been considered.

As a discipline archaeology in India has perhaps always been part of and handmaiden to ancient history. For Cunningham it was perhaps the praxis of historical geography, for Smith, arguably the study of historical imperialism and for Marshall a historical study of the Greeks in a different context. While the summary above is unfair, it serves to highlight the intellectual predispositions with which many of the first generation of Indian archaeologists approached their new subject and discipline. To underscore the point being made here, it is noticeable that most of the early and pioneering archaeologists of the 1950s were eminent and accomplished Sanskritists.[21] While a nationalist school of historiography has been proposed and defined and purports to describe the elder company of such scholars who remained more broadly Indological these roots have never really been fully examined.

It is the intention of this section to demonstrate that the theoretical or perhaps more accurately speaking, the interpretative apparatus that Indian archaeologists wielded in these early years were

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[21] H.D Sankalia, VS Agarwal, GR Sharma, BB Lal, SP Gupta were all trained in Sanskrit as a language for their graduate and in the case of some even in their post-graduate studies. This is an important and revealing source of how almost all of the leading archaeologists of their generation were first trained in Sanskrit and thus negotiated different paths between Indology, Ancient History and Archaeology.

bound by the constraints of the Dark Age and the Indology that informed it. Specifically these presuppositions come to focus upon two central thematics each of which creates its own forms of tensions for each scholar and have to be arduously negotiated. The first of these relates to the construct of Ancient India, as variously cast as the Harappan, Vedic and Mauryan/ Early Historic worlds constituted a great civilization. The idea of civilization as a stage and as a label has had nebulous and yet burdensome connotations. These have proved hard to reconcile with the somewhat disparate remains of material assemblages as compared to say the perfection of metre and verse. This idea of cultural mismatch through what is read via texts and what is yielded through the trowel is a consistent theme in Indian Archaeology. The other stumbling block paradoxically is what can be termed loosely as the tribal question. Historically, and in the present, historians of ancient India were faced with an issue of perceived ethnic and cultural others. This has been a question which almost invariably has been framed as one of atavistic, primitive groups of survivors. It is the argument of this section, that these issues have clouded and lensed the manner in which any attempt to comprehend the archaeological history of northern India has been made.

Perhaps another way of understanding the archaeological historiography of the Chalcolithic is to suggest that it has been one defined by the lack of great expectations. The ‘Civilizational’ parameters as set by the extant and evolving / reformulated meta-narrative have been variable by case and yet consistent in their ignorance and lack of consistency. The Harappan civilization’s vast network of resource acquisition and impressive array of artefact categories, as well as it novelty and uniqueness had been seminal in setting it apart. The canonization of the Veda, especially as reified through colonial scholarship, endorsed its status as the source of all ‘Indian’ civilization[22]. The case for the early historic seems a bit more double-edged in the nationalist world-view, as a confluence of Greek and Mauryan pedigree seems to impart it the requisite imperial and civilized connotations. By drawing attention to such manners of the construction of the understanding of these historical episodes it is argued here that this is the manner in which Indian archaeology articulated a stagist classification of cultures and a native hierarchy of the evolution of societies. Thus the Harappans became canonized, and their bronze age was cast within their own singular mould, the vedic hymns while omnipresent and yet difficult to tie down in space or time, represented another similar epoch of higher achievements and developments. This a historical vision which speaks in the language of a

[22] Rosane Rocher, 'British Orientalism in the Eighteenth Century: The Dialectics of Knowledge and Government' in *Orientalism and the Postcolonial Predicament: Perspectives on South Asia*, eds. Carol A. Breckenridge, Peter Van Der Veer. (University of Pennsylvania Press, 1993 p.355) argues that the perceived divide between vulgate and canon as replicated by early Oriental Scholarship constitutes a fracture in the manner in which the corpus of classical Sanskrit literature was historically viewed and comprehended. Thus certain categories of texts were elevated to a status where they were fit to be treated as essentialized sources of high tradition for law, culture and history and others were denied such reading.

grand narrative of the late 19th century, where whiggish conceptions of history articulated and narrated the fate of nations and their glories through difficult times as best led by the finest and most courageous of heroes.

The implications for the archaeological under consideration of these cultures aside, it is by corollary that all else, first became the Chalcolithic and then a priori became labelled simple, incipient and nascent or emergent. Even when faced with a material culture as diverse and complex as the Harappans, and arguably more implicated in systems of exchange, hierarchy and networks than any proposed as equivalent to the Vedic – archaeologists of the western Deccan and Rajasthan have averred that their simple farming communities are far from the right material for the rhetoric and status of civilization. Further, perhaps the only model for understanding their emergence and cultural logic is one which relates them to a sphere of civilization.[23]

Almost as a mirror to the discourse that has been described above there has been a less comfortable discourse with those who have been perceived as having fallen outside the fold. The early group of scholars reacted to tribal groups in a spectrum of closely related yet differing shades of opinion. Uniting these reactions was the idea that these peoples and their cultures lay outside of a definable mainstream of Indian civilization and its historical development. In a sense these cultures were those which were never really fully exposed to the light which led India out of the dark age. Thus, the early frameworks sought to place these cultures as simply non-Aryan, or as atavistic survivals or most explicitly as in Kosambi's formulation of 'living prehistory'.[24] Kosambi's formulation is telling not only for the parallels he went on to draw, but also for the manner in which ethnicity was perceived and understood and for its projection of Chalcolithic traditions as episodic features which were veritably brief also-rans in a history defined by the eventual and final march of Aryans and Aryanization.

The implications of these two trajectories are pervasive and complex. A larger cultural whole dominated the facts which the trowel was expected to uncover. It is the argument here that these are the reasons why discernable and cognizable elements of regional societies and identities have

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[23] cf. M.K. Dhavalikar, *Cultural Imperialism: Indus Civilization in Western India* (Books and Books, New Delhi, 1995.)

[24] Surprisingly enough, much of ethnoarchaeological work even today continues to regard these cultures, who form a varied and heterogeneous group within any given region as primitive survivals and have studied their material cultures as a project in the direct ethnographic method rather than as one of 'ethnoarchaeology'. cf. Allchin, Bridget , *Living traditions : studies in the ethnoarchaeology of South Asia* (New Delhi: Oxford & IBH Pub. Co., 1994), Malti Nagar and V. N. Misra, 'Hunter-Gatherers in an Agrarian Setting: the Nineteenth Century Situation in the Ganga Plains' *Man & Environment*, Vol 13, 1989 and Shahida Ansari *Ethnoarchaeology of Prehistoric Settlement Pattern of South-Central Ganga Valley* (Pune and New Delhi, Monograph published by the ISPQS, 2005)

rarely been engaged with in Indian archaeology. Further, such a preconception has also limited and clearly influenced the manner in which issues of cultural change have been dealt with, the compulsions of a meta-narrative prescribing both overall continuity and landmarks in the cultural sphere. In such a world where the broader contours of cultural history pointed to significant trajectories of apparent continuity and integration (such as that assumed of a vedic-brahmanical culture) the binding logic of tradition came to stand in the way theories and understandings of change in the past could be approached.

Chakrabarti's examination of theoretical issues in Indian archaeology forms a useful entry point here as it contains both substantive discussion as well as an awareness and attempt to free discussion from the dilemmas outlined above.[25] Chakrabarti usefully illustrates this by reference to the example of Suniti Kumar Chatterjee's work which was typical of the most common form of a well established way out of this conundrum – of constructing any form of diffusionary logic and relating it to the archaeological record. Diffusionism as an explanatory tool has a long and troubled history and can be documented as a tool of imperial, colonial and nationalist claims upon the past. Yet as Chakrabarti and Basa[26] have demonstrated in their own discussions its persistence is rooted in the power it apparently bore and continue to bear upon the minds of those struggling to make sense of archaeological cultures in the midst of historical metanarratives and those extolled by tradition. Basa draws our attention to how Wheeler spoke of 'imprint without impact'[27] and infamously and picturesquely spoke of how 'ideas fly about our landscape'. Equally bedevilled by the logic of diffusionism was Sankalia's understanding of the cultures of Deccan Chalcolithic, something so peculiar that Basa terms it an 'Iran-centric diffusionism'[28].

A further example should suffice to demonstrate that while powerful and malleable the logic of broad cultural similarities adduced as essential and genetically linked traits. There existed a dying yet still kicking strain of the essential relation of all Indo-Aryan peoples which philology served to have proven and archaeology merely needed to corroborate. The heightened propensity towards diffusion thus stemmed from this pre-ordained kinship and idea of movement of peoples, a jigsaw

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[25] Dilip K. Chakrabarti, *Theoretical issues in Indian archaeology* (New Delhi: Munshiram Manoharlal Publishers, 1988)
[26] Kishor K.Basa 'Anthropological Perspectives in Archaeology: Some Examples from India' in S.R. Walimbe, P.P Joglekar and K.K. Basa *(eds) Anthropology for Archaeology: Proceedings of the Professor Irawati Karve Birth Centenary Seminar,*(Pune, Deccan College Post-Graduate and Research Institute, 2007)
[27] R.E.M. Wheeler, 'Archaeology and the Transmission of Ideas', *Antiquity*, 26, 1952, p.180-92 and *Impact and Imprint: Greeks and Romans beyond the Himalayas* (30th Earl Gray Memorial Lecture delivered at King's College, New Castle Upon Tyne)
[28] I agree with Basa's formulation and take it as a useful and descriptive shorthand for much of the interpretational framework within which cultures like the Malwa culture were initially comprehended within and the manner in which they have continued to be studied.

within which the question of migrating / invading Aryans fitted in only too easily. An extreme and still debated example has perhaps always existed in the case of the Megaliths, most colonial scholarship on which treated them in exactly such a manner.[29] On the invitation of Wheeler, Gordon Childe, contributed an article to *Ancient India*[30], the journal of the Archaeological Survey of India at the time which even one of his biographers suggests is so completely out of consonance with Childe's often experimental theoretical engagements that it appears to present a parody of the role of diffusion in perpetuating culture-historical archaeology of a dubious sort. Apparently the joke misfired and the article came to be for a period an essential touchstone in the archaeology of the cultures collectively considered and lumped together as the megalithic.[31]

Chakrabarti's formulation is also useful as it brings into focus many other issues. He explicates how the question of external trade too is really a matter of modified diffusionism. More than anyone else it has been consistently Chakrabarti's oeuvre which has tried to generate meaningful discussion and produce narratives out of the mass of archaeological data which has accumulated[32]. In the course of this Chakrabarti has repeatedly raised the issues of the multiple origins of Iron technology and the depth and polyvalent nature of agricultural societies at a greater depth in time in many regions than the meta-narrative allows for. These contributions have been significant as often they have been the lone voice which seems to have attempted to stay close to what has emerged from the excavations rather than adhere to the problematic assumptions outlined above. At the same time, while this stance has changed over time, some of the framing categories and the manner of discussion have not stepped entirely outside of a culture-historical framework and seem to ratify the given disposition: the rubric of Neolithic-Chalcolithic cultures outside the Harappan orbit seems to be an apposite example. An equally fitting example would perhaps be that of S.P. Gupta's repeated formulations and theorizations on the subjects of the emergence of urbanization in the Harappan and Early Historic periods.[33] While archaeological exercises, they remain constrained by the burdens

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[29] James Ferguson, *Rude Stone monuments in all Countries: Their Ages and Uses* is only one such famous example.

[30] V.G. Childe, 'Megaliths' *Ancient India*, No. 4, 1947-48: 4-14

[31] For a history in two parts of that article see Sally Green, *Prehistorian : a biography of V. Gordon Childe* (Bradford-on-Avon : Moonraker Publishers, 1981.) and BG Trigger, *Gordon Childe: Revolutions in archaeology* (London, Thames and Hudson, 1980). For just one example of the renewed impact it had see S. P. Gupta, 'Gulf of Oman : The Original Home of Indian Megaliths', *Puratattva*, Volume 4 (1970-71), p.4-19

[32] D.K. Chakrabarti, *India, an archaeological history : Palaeolithic beginnings to early historic foundations* (New Delhi ; New York: Oxford University Press, 1999) and more recently *The Oxford companion to Indian archaeology : the archaeological foundations of ancient India : Stone Age to AD 13th century* (New Delhi: Oxford University Press, 2006)

[33] S. P. Gupta, 'A Model for Understanding the first Urbanization in India', *Puratattva*, Volume 6 (1972-73),p. 42-51 and S. P. Gupta, 'Two Urbanizations in India : A Side Study in their Social Structure', *Puratattva* ,Volume 7 (1974-75), p. 53-61

of civilization and enter into comparisons and explanations that necessarily afford a telos towards this heightened level of cultural achievement which must come into being because it is known to exist.

The tension measured in these discourses has been one which uniquely locates the post-colonial situation of the discipline of archaeology. Whatever ill-documented and ill-understood methods of relating to the material past existed prior to the coming of archaeology, this disciplinary product of the project of colonial modernity has completely transformed and restructured them along new lines. Yet the discipline founders, as it negotiates praxis and interpretation; it must find sources for structuring both. As this chapter has tried to argue thus far, the intervention of Wheeler was seminal to the evolution and development of the former. In the case of the latter, if the interpretational aspect of the study of material cultures, the essential tension has been one of trying to relate indigenous categories and patterns of thought and analysis to a discipline with new expectations sourced from different intellectual traditions. This mismatch is something that continues to plague the study of ancient India and has perhaps never been adequately described nor equitably come to terms with. It is an opposition that brings this chapter and this discussion back to the essential tension which Gordon's quote had highlighted at the very beginning: that between text and archaeology and the expectations the discipline should have from such an exercise.

Aryans in Darkness and Light

> However, in the context of early historic India there is at least some logic and order in the correlation between the archaeology and the literary data. The situation is regretfully chaotic in the field of proto-history, with most of us doing their bits to increase the chaos.[34]

This section agrees with the latter half of the quotation above and shall try and demonstrate that the inability to develop and produce robust forms and means of explanation has led Indian archaeologists to search for answers from literature to almost all their central questions. And, as understood and approached, there has been no bigger question than that of the proto-historic Dark Age. The debate over the possible interpretation and correlation of archaeological cultures with those perceived to have been in existence from a reading of the literary texts has been heated, acrimonious and at times vicious. Yet, a simple thread unites all of these positions: they have all prioritized a reading of the texts over what the archaeology has been communicating. The table below (Table 1-1) demonstrates the main claim of this section: that despite the acrimony and the

[34] Dilip K. Chakrabarti, *Theoretical issues in Indian archaeology* (New Delhi: Munshiram Manoharlal Publishers, (1988)p.40

heated debate the two main positions are hardly any different from each other or from the number of others proposed. Further, they share a unique number of characteristics in the logic of their construction and are arguably similarly lacking in their ability to convince.

Table 1-1 A Tabulation of the major hypothesis about the 'archaeology' of the Dark Age and the interpretation forwarded by various scholars in broadly chronological relation

MS Vats[35] and later by H.D. Sankalia[36]	Rig Vedic people were the same as the Cemetery H people	Primarily premised upon a reading of painted 'narratives' upon jars which could be correlated with hymns of the RV
Mortimer Wheeler[37]	The Rig Vedic people were the invaders and destroyers of the Harappan Civilization	Infamously based upon what later came to be termed the 'Mythical massacre' at Mohenjo-Daro[38]
B.B Lal[39]	The PGW can be equated with the story of the Mahabharata and the Ramayana with that of the early NBPW	Principally, the earliest common occupation of the Ganga plains should be the one which correlates with the Aryans and the core historical events of their oldest epic.
D.D. Kosambi[40]	The PGW represents a Puru-Kuru ceramic assemblage	Apparently based on a best fit evaluation of the historical geography of the assemblage and the group known from texts.
H.D. Sankalia[41]	The text of the Ramayana has been altered and changed beyond any possibility of identifying 'historical core' but a project of archaeological	Uncomfortable with any direct reading of the Ramayana and sceptical of the manner in which the text can be used at all. But

[35] M.S. Vats 'Excavations at Harappa' *Annual Report Archaeological Survey of India* 1928-29:76-85
[36] H.D. Sankalia, 'The "Cemetery H" Culture', *Puratattva*, No. 6, 1972-73, pp.12-19
[37] R.E.M. Wheeler, 'Harappa 1946: the defences and the cemetery R37', *Ancient India*, No.3, 1947, pp. 59-130
[38] G.F. Dales, 'The Mythical Massacre at Mohenjo-Daro', *Expedition*, Vol. 6, No. 3, 1964, pp.36-43
[39] B.B. Lal, 'Excavation at Hastinapura and other explorations in the Upper Ganga and Satluj Basins 1950-52: new light on the dark age between the end of the Harappa culture and the early historical period' *Ancient India*, Nos. 10-11, 1954-55:5-151. and B.B. Lal 'Archaeology and the two Indian Epics', *Annals of the Bhandarkar Oriental Society*, Vol. LIV, pts, I-IV, (1973), p.7-8 Lal has subsequently made the point clear and developed it further in a number of publications. His recent positions however have not been as explicit, especially those after 1995.
[40] Kosambi, D. D., *An introduction to the study of Indian history* Chapter 4.3 (Rev. 2d edn.; Bombay: Popular Prakashan, 1975)
[41] H.D. Sankalia, 'Traditional Indian Chronology and C-14 dates of excavated sites' in V.N. Misra and M.S. Mate (eds.) Indian Prehistory: 1964 (Poona, 1965) and *Ramayana: myth or reality?* (Dev Raj Chanana memorial lectures; New Delhi,: People's Pub. House 1973)

	geography is valid and desired.	admits an essential historical kernel and decries the lack of systematic excavations at sites like Mathura and Ayodhya which would answer such questions.
Romila Thapar[42]	The OCP, PGW and B&RW all relate to different lineages and tribes of the migrating Aryans.	While the puranic lists do not constitute a strictly historical record they do contain a memory of migrations which may find meaningful correlation with the differential distribution of Archaeological cultures.
Romila Thapar[43]	The two main phases of Aryan migration into the Ganga valley are visible in the distributions of the B&RW and the PGW	Apparently based upon the notion of a southern and northern route as referred to in Later Vedic texts.
R.S. Sharma[44]	The Later Vedic culture can be meaningfully correlated with the PGW culture.	The PGW is principally distributed in the Upper doab and is a culture without writing and without Iron, or a profuse or economically meaningful use of the same. This matches the stage of society the Later Vedic people had reached.
Allchins[45]	Agree with Vats but stress the fact that integration of migrants is a better paradigm. Argue that Iranian elements of Jorwe transformation are also markers of an Aryan presence. Qualify yet accept the position of the PGW and Late Vedic equation and argue for the OCP as an earlier stage.	Overall, stress that a diverse range of communities existed prior to the movement of Indo-Aryan speaking peoples into the subcontinent but agree that the quest for and some of the arguments for the identification of such people are valid, but are often also flawed
Allchin[46]	Suggest a two stage movement, the first of which involves the settlement of Aryans somewhere in the Indus system and establishing control over a mixed population and thence, in the Later Vedic, in which the PGW is implicated, moving into the Ganga Valley and	Slight modification of their previous statement whilst continuing to assert the judgement that episodes of migrations and colonisations is essential to South Asian history.

[42] Romila Thapar, Puranic Lineages and Archaeological Cultures, *Puratattva*, Vol. 8, 1975-1976, p. 86-97

[43] Thapar, Romila, *From lineage to state : social formations in the mid-first millennium B.C. in the Ganga Valley* (Bombay: Oxford University Press, 1984)

[44] Most concertedly and forcefully expressed in R. S. Sharma, 'The Later Vedic Phase and the Painted Grey Ware Culture', *Puratattva*, Vol. 8, 1975-1976, p. 63-67 Later publications restated and expanded the theoretical components of the arguments presented here.

[45] Allchin, Bridget and Allchin, F. Raymond, *The birth of Indian civilization: India and Pakistan before 500 B.C* (Harmondsworth,: Penguin, 1968)

[46] Allchin, Bridget and Allchin, F. Raymond *The rise of civilization in India and Pakistan* (Cambridge world archaeology; Cambridge ; Cambridge University Press, 1982) p.233-234

	establishing kingdoms in a more "congenial atmosphere".	
Erdosy[47]	Accepts and endorses the OCP – PGW early and later Vedic equation. Adds that possible differences in motifs painted on the PGW between sites may be ethnic markers amongst different clans or tribes	Distinguished by the attempt to take stock of and assess the socio-political complexity of other cultures of the Ganga basin, but, despite this exercise agrees and endorses the meta-narrative and privileges the literary data above the archaeological.[48]

As the table demonstrates, pretty much every possible line of inquiry has been made or suggested at some point of time or the other. These exercises while overlapping seriously on the count of method and strategy have been deeply divided by ideological and political causes and bear narration. It has to be stressed that despite all these divisions almost all of these arguments rest upon a single premise, that of apparent geographical contiguity between a geography evoked in texts of diverse genres and construction and between the apparent limits of the distribution of an archaeological culture. The reconstruction of geographical domains of a culture as represented by stray references in a codified body of ritual or sacred literature is an exercise which is fraught with tremendous difficulties and uncertainties, but it is a classically Indological exercise. The predilection in modern historiography is thus one which has hallowed roots and a tradition to face up to. The other half of the exercise is however equally suspect and something which has hardly ever been raised. Save for the pioneering surveys of B.B. Lal's which investigated and established the limits and distributions of the PGW soon after its initial discovery in the early 1950's there have been few subsequent efforts to actually establish this geographical contiguity which is the most basic and arguably only shred of 'evidence' much of these narratives are built upon. It is the examination of such issues which this dissertation has set as its agenda and engage with fully in Chapter 3.

The main bone of contention appears to have been not the path nor as much the chronology but the cultural baggage of the presumed and apparent migrants. Thus the debate to resolve it as sharply as possible became one between 'tradition' and history, or that between Lal's epics and the Vedic texts of Thapar and Sharma. Discomfort amongst many archaeologists also surfaced at Lal's use of an alternate textual tradition to frame his archaeological history of the Ganga plains. It was his choice to investigate if the earliest levels of sites mentioned in the texts shared an earliest assemblage, which could then be plausibly associated with the Mahabharata and the Ramayana epics. Lal was

[47] G. Erdosy, 'The prelude to Urbanization: The rise of Later Vedic Chiefdoms' in, *The archaeology of early historic South Asia : the emergence of cities and states* ed. Allchin, F. Raymond (Cambridge New York, NY, USA: Cambridge University Press, 1995)pp. 75-98

[48] Erdosy, George (1988), *Urbanisation in early historic India* (BAR international series;; Oxford, England: B.A.R.)

notably cautious is his early formulations may correlate with the period of the texts and thus relate material cultures to the societies and even people depicted in the epics. It is noteworthy that this use of the epics was framed as a question of tradition and archaeology and a number of the opinions tabulated above were expressed in some form in a special section of *Puratattva* Vol. 8 as organised by BK Thapar, who alongside A. Ghosh was amongst those who articulated concern about such a project. However, it can be argued that the alternative proposed, particularly and explicitly by R.S. Sharma who has continued to refine, adjust and restate the position outlined above was premised on starkly similar grounds. The only real difference appears to have been his textual tradition of choice, which was more in consonance with accepted notions of the right path to approach and construct and Indological history of ancient India. It is noteworthy that Romila Thapar's early attempt drew upon the alternative tradition, that of the Puranas, before her considered in a purely textual manner by F.E. Pargiter and A.D. Pusalkar.[49] Consensus seems to have emerged more out of opposition to Lal's thesis than out of any particular examination and engagement with the merits and limitations of Sharma's choice. This consensus, it may be added, was given currency by an agenda of subscribing to the formulation of materialist meta-narrative of which it became an essential and indispensible part. While Chapter 3 examines the evidential parameters of these questions at length the discussion here agrees with and endorses Chakrabarti's position on this issue of migrations, peoples and essential cultural traits and units: "one fails to understand how a pottery, basically found east of the Satluj and a culture having rice pig and buffalo among it's components can be related to anything coming from the north-west"[50].

Are these similarities limited to only an idea that a group of people authoring or representing a set of texts are crucially linked to the archaeological history of the Ganga plains? It appears that the burdens of the extant Indological meta-narrative and the tropes circulating from a sociology of the Vedic texts imparted tremendous influence upon the manner in which new archaeological evidence could be considered and emplotted into emergent understandings and narratives of ancient Indian history. Both Lal's and the 'materialist' narrative of Thapar and Sharma share a notion of colonization and first settlement, and the history they trace thus becomes one about origins and beginnings and speaks the language of initial settlement and colonization. For Lal admittedly the case is weaker, but his manner of the reproduction of tropes from texts is far more transparent and positivist, the legend about the antediluvian shift of the capital from Hastinapura to Kausambi seemingly evidenced by a crude and presumed late form of PGW at the latter site. For Thapar and Sharma the break from an evidential paradigm to the dictates of the meta-narrative is stark and

[49] F.E. Pargiter, The Ancient Indian Historical tradition,(London, 1922)
[50] D.K. Chakrabarti 'Iron age', in *An Encyclopedia of Indian archaeology*, ed. A Ghosh,Vol. 1 p. 109

more mechanical. Archaeology can provide geographic correlation but a discussion of cultural content from the dawn of the historical is supplied by a sociological interpretation of texts alone. Thus a narrative is fashioned which replicates many tropes of a classical Aryan narrative – migration and initial settlement. The extension of settlement and colonization of further lands is married to a classical materialistic conjunction of the emergence of stratification, property, the state and Iron technology. Arguably, then, this is a case of old wines in newly forged bottles.

It has been the endaevour of this chapter to argue and demonstrate that the seminal episodes of all extant narratives of early India are premised upon contingent and problematic strategies of engaging with textual sources. The role of archaeology and archaeological evidence while hotly contested has been extremely limited and when involved it has served only as a handmaiden for the interpretation and support of paradigms and narratives which are sourced in the various exegeses of an Indological historicism. The discontents of such a muddled paradigm are complex and need detailed examination if we are to recognize tropes for what they are and evaluate discourses for their explanatory capacity and ability to provide meaningful descriptions of the ancient history of northern South Asia. Equally this chapter has tried to demonstrate that much of this is born out of the manner in which archaeology has continued to be practised. Arguably, the main labour of Indian archaeology has been the massive task of piecing together the patterning of assemblages, especially as marked by ceramic wares rather than the study of the social and ideological constitution of the communities under the trowel. The study of ancient India is tied to the categories of Harappan, Vedic/Aryan and to the ideas of cultural wholes and migrations. These do not adequately describe the complexity of the evidence, which is plain and clear and bursts out of the seams of the extant meta-narratives. This is a condition which is not merely limited to the contentious period where these narratives seek to locate the origins or describe a formative period; rather the Thapar-Sharma meta-narrative operates with a telos and a unitary logic that continues to explain change as a series of singular events / phenomena where diffusion (secondary state formations) or 'external' factors such as trade are the primary and animating forces.

Specifically, the current construction of ancient Indian history operates with periods and periodizations of socio-economic change that operate at too large a unit of space and too long a period of time to be meaningful. Equally archaeological data has recorded patterning for whole periods, but rarely if ever for more discrete horizons such as floors, or sub-periods. Our extant explanations for the early historic and later periods are thus confined and bound to these large units and thus can only generalize. As this dissertation will demonstrate changes are readily observable and demonstrable across different regions and in smaller, more closely identifiable periods of time

which can allow one to build towards more definite arguments about the societies and communities under our study.

This dissertation will address these challenges by studying the archaeological data and will discuss it in the chapters to follow. To make its position clear on the issue of textual study the position taken here is as follows. In recent years there has been a gradual shift towards the recognition of genre, ideology, discursiveness and the role of the often problematic dialogue between the categories of authors and audiences in the study of ancient Indian texts. There is a shift towards understanding the discourses these texts are producing and the ones in which they are implicated themselves. However, these efforts are arguably, well intended but not substantive enough if they do not articulate and re-engage with the premises and preconditions of the meta-narrative. Unless this re-examination becomes an integral part of the exercise alongside the study of ancient texts in the original languages rather than via the mediated texts of colonial translations, we shall continue to produce narratives and knowledges about ancient India which are contingent, mediated and in fact, suspect. In conclusion, this chapter points to a stirring study of one of the more unexpected sources for such preconditioning and structuring of our ways of imagining the past. Sumit Guha's examination of the Bhils drew him into an engagement with the manner in which the category of the primitive was constructed as a colonial stereotype and then communicated into nationalist and post-colonial scholarship. Guha's demonstration of the allegory of deeper strata, older races and primitive peoples held true much to his surprise as much for the histories and ethnographies of his colonial informants as for his modern informants on the ancient past. At the end of the preface to his monograph examining environment and ethnicity in the western deccan over the course of the second millennium CE Guha comes to an impassioned conclusion, one which the current project agrees with in spirit:

> It must be evident, then, that the archaeological record offers little support for the mythic history of clashing races that took shape when brown sahibs and white sahibs sought to escape their fears about the instability of social hierarchy by giving it a biological basis and projecting it into the past – thus covering extant hierarchies with the mantle of the natural and the primordial. If this paper has torn a small rent in that specious fabric, it has amply fulfilled its purpose.[51]

[51] Sumit Guha, 'Lower Strata, Older Races, and Aboriginal Peoples: Racial Anthropology and Mythical History Past and Present' *The Journal of Asian Studies*, Vol. 57, No. 2, (May, 1998), pp. 423-441

Chapter 2 From Revolution to Co-evolution: Theoretical and methodological traditions in the study of early societies

Contents

My purpose in this chapter is to raise only very select elements from the whole range of issues which impact upon the study of early societies. I shall not aim to enter into debates with an aim to comprehensively review them either; instead my purpose here is to draw attention towards problematic and contentious issues in the study of early societies and their 'social evolution'. Revisionist positions over the last two decades have come to question not only classical evolutionary schema, but have also created serious problems about the manner in which we can hope to study and compare such processes across different times and places. This chapter serves as a clarification of the theoretical issues which have been contemplated in the study of the distribution of archaeological cultures which is presented in Chapter 3. Further I trace here the manner in which intensive regional surveys have become the methodological backbone of the study of social and political processes in almost all archaeological traditions which have been interested in modelling social change from material cultures. The purpose of this chapter is to outline what degree to which the massive and unsorted data mountain of survey data of Indian Archaeology can be used for those purposes and finally I present here a preliminary position on the theoretical framework and labels my own attempt at understanding the Ganga basin shall use, with a another statement at the end of Chapter 3 where it can be discussed in the full light of arguments and the datasets.

Revolutions in British Archaeology

> Even those most complete and finished accomplishments of the old edifice - the explanations of the development of modern man, domestication, metallurgy, urbanisation and civilisation - may in perspective emerge as semantic snares and metaphysical mirages. [1]

David Clarke's invective above is apposite for this discussion of the status and pertinence of archaeological theory to the project of this dissertation. It is also apposite for a number of reasons. It is dated and yet it speaks with venom and a clarity that is relevant even today. It is doubly relevant because Clarke's quotation has also formed the point of departure by Clive Gamble for a full length examination of what Clark identified but darkly.[2] The influence that V. Gordon Childe has had over the British and Indian traditions of archaeology has been profound and his legacy was one of the many intended targets of Clark. Yet despite repeated criticism and debunking the ghost of Childe and his revolutions, his passionate belief in progress and his love of charting out the spread of cultures rise repeatedly from the grave. Gamble's revisionist position and text serve as a good entry point as they are typical of a current phase of revisionism which speaks both of examining the discontents of the constructs of the past which have held sway as well as specifying directions and trajectories which seem most urgent and fertile at the present juncture.

As many biographers and commentators have pointed out, *What Happened in History*[3] occupies its own special place in Childe's collected works. Written at the juncture of World War II and in a mood of stolid progressivism despite the prevalent state of affairs, it is a veritable pamphlet of Childe's archaeological and political sensibilities. It is also the monograph which more than any other of his voluminous tomes or incisive articles generalised and propagated his form of social evolutionism of stages and revolutions. In a sense, the course of British archaeology since then has been a slow trial of moving away from such a paradigm or of such a consideration of the past and its material cultures. Most significantly one can cite the major rethinking of the nature, course and significance of the transformations that attend the processes that can perhaps be used to describe what Childe has termed the Neolithic revolution. Childe's catalogue of criterion for Urbanisation thus has also been interrogated, discarded and returned to, time and again. While such persistence's are a tribute to the power of insight his work definitely brought to the study of material cultures there is a

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[1]Clarke, D. L., 'Archaeology: the loss of innocence' *Antiquity* 1973, Vol. 47:p.618.

[2] Clive Gamble, *Origins and Revolutions: Human Identity in Earliest Prehistory* (Cambridge, Cambridge University Press, 2007)

[3] V.G. Childe *What Happened in History*, (Harmondsworth, Middlesex, Eng., Penguin books, 1943)

definite and committed move away from stagism and the rhetoric of 'revolution'. A major thrust within the British tradition of archaeology has involved a host of studies focusing upon an increasingly widening range of perspectives upon the Neolithic which have questioned practically every assertion which Childe had made.[4]

This shift away in itself has not been an easy nor a path to any other simple and easily articulated theoretical position. If anything, the clear presentism of Childe's concerns spurned introspection into the manners in which we continue to understand the past in terms of the present, and how this essential ethnocentrism was as big a challenge for archaeology as was the project of devising new and effective categories for description and analysis.[5] This in turn focussed attention upon the manner in which the archaeological project itself had been defined as one of studying change in human societies and was essential part of the British tradition. But defining change as an objective in itself can be a problematic and tenuous issue, which in turn led to what Gamble describes as 'a new orthodoxy stressing continuity'[6]. Apart from such episodes of introspection and a concerted effort at providing meaningful methods of spatial analysis the major defining episode of British archaeology has been the exposition of post-processual archaeology as led by and defined by the work of Ian Hodder.[7] Two facets of this development need to be noted in this discussion: the stress on the need to focus on the agent helped spawn creative engagement with aspects of the material culture which have since much better described elements of behavioural complexity than any previous paradigm had hitherto engendered. The critique of positivist and scientist new archaeology may have been taken to a radical extreme, but a major contribution of post-processual archaeology has also been the ability to stress the polyvalent nature of archaeological interpretation and desist from the need to build large universal and all encompassing theories of historical interpretation.[8]

Anthropological foundations and the modelling of regional societies in the Americanist Tradition

[4]The most concerted examples of this are Julian Thomas (1991), *Rethinking the Neolithic* (New studies in archaeology; Cambridge [England] ; New York: Cambridge University Press) and Julian Thomas (1999), *Understanding the neolithic* (Rev., 2nd edn.; London ; New York: Routledge)

[5] For a discussion of this see Brian M. Fagan , editor, The Oxford *Companion to Archaeology* , (Oxford:. Oxford University Press, 1996)

[6] Clive Gamble, *Origins and Revolutions: Human Identity in Earliest Prehistory* (Cambridge, Cambridge University Press, 2007)p. 60

[7] Hodder, Ian and Orton, Clive (1976), *Spatial analysis in archaeology* (New studies in archaeology ;; Cambridge ; New York: Cambridge University Press) Hodder, Ian (1982), *Symbolic and structural archaeology* (New directions in archaeology; Cambridge [Cambridgeshire] ; New York, N.Y.: Cambridge University Press) and

[8] Ian Hodder (1986), *Reading the past : current approaches to interpretation in archaeology* (Cambridge [Cambridgeshire] ; New York: Cambridge University Press)

The Americanist tradition has had a completely independent trajectory since World War II and merits brief comment here simply on account of the transformative impact it has had on the global praxis of archaeology, especially on the compelling question of how the emergence and development of societies and complexity within them can be understood and modelled. The post-war orthodoxy here is dominated by two quite independent strands: the first of elaborate and detailed theories of neo-evolutionalist anthropological thought and the related and diaologic role of systems theory and the new archaeology in theorizing and systematizing the study of material culture.

The work of Julian Steward and Leslie White in the early 1950's was to persuasively cast a metaphor of biological evolution over the contemplation of cultural evolution[9]. Elaboration over such though necessitated a taxonomy of evolutionary forms, each describing a different stage, a veritable different species of the genus homo. Thus were formulated the ideas of an essentially egalitarian primordial unit from which evolve in a ladder like sequence of more complex social forms the band, tribe, chieftainships and eventually the state. A related and overlapping formulation of more width, particularly responding to the massive ethnographic movement which accompanied this debate was that of the ranked society, a formulation which proved to be fruitful and long-lived.[10] This ladder and its proclaimed universality led to a phase where it was believed that the evolution of all societies, everywhere must have undergone this sequence of forms to have arrived at that of the state. As is understandable, this universalist trans-historicism appealed well to a project premised upon social formations theory and much of Thapar's oeuvre can be seen as an engagement with this literature and other sociological theories under debate in the 1970's.

In the years since though, even the revisionist set of hypothesis to some of the fulcra of the old neo-evolutionist order have themselves come to be revisited again. Two threads to this argument may be explicated here: the universalism of forms and essential concomitants are what eventually led to the demise of the category of the chieftain. Ethnographically and Archaeologically too much diversity could be observed within cultures which all generally speaking seemed to fit the bill and

[9] L. White, 'The concept of evolution in cultural anthropology' in *Evolution and Anthropology: a Centennial Appraisal*. Pp. 106-125. (1959, The Anthropological Society of Washington. Washington, D.C.); J. Steward, *Theory of Culture Change*, (1955, University of Illinois Press, Urbana). This phase of American anthropology has often been reviewed in recent years, for a critical restatement see Bruce Trigger, *Sociocultural Evolution (New York,*Blackwell Publishing, 1998*)*. For a cogent statement of the arguments against such a paradigm, on which much of the present discussion draws see Norman Yoffee, *Myths of the Archaic State*, (2005, Cambridge University Press, Cambridge) and 'The Decline and Rise of Mesopotamian Civilization: An Ethnoarchaeological Perspective on the Evolution of Social Complexity', *American Antiquity*, vol. 44, No. 1 (Jan 1979), pp. 5- 35.

[10] Sahlins service and Fried

more centrally were neither 'simple tribes' nor 'full fledged states' either[11]. Further, the schema itself prescribed a telos rather than allowing a paradigm for exploration and description of historical processes.[12] An equally powerful source of critique was sourced from the inability of this unlinear trajectory to account for and deal with instances of collapse and 'devolution' of complex societies.

The keystone of almost all debates in the study of cultural evolution has been the category of the state. Almost inextricably linked both with Marxist theories of property and materialist notions of stratification and with a universal presentist concern with the emergence of recognizable and known or even experienced form of political organisation the study of the ancient state has been the eventual marker of a range of meaningful transformations in ancient societies. In a ladder towards complexity the state marked the eventual and definitive arrival of any cultural trajectory. It formed thus also the basis of much of the comparative study of ancient civilizations that has been attempted. Universal, omnipresent and yet recalcitrant and resistant to a convincing theorization that would effect a description which suited all cases is again the story of the study of the ancient state. Perhaps, the study of the state alone may account for more expenditure of archaeological time and energy than any other single object or category.

And yet, as has been recently argued that may itself have been the root of the problem. By exalting it and by stressing its centrality much of the complex literature that attends the rubric of 'the rise of the state' ends up creating a stereotype. The 'archaic state' thus as Yoffee argues is a veritable myth and looms large in our accounts of socio-cultural evolution. Typically, the quest to identify traits in the material culture which would be definitive of the state have been predicated and mired in a circular chain of reason – as all such attempts must first define the state, tie emergent political forms down to a enumeration of traits which can then be identified. Thus, either the project becomes one of insisting upon the form and thus making all archaic states appear to emerge and function in an identical manner. Another problematic resolution of this conundrum appears to have been the recourse to a complication of the definition[13] or by arguing for certain cases of pure arrival and

[11] Timothy Earle, *Chiefdoms: Power, Economy, and Ideology* (Cambridge, Published by Cambridge University Press, 1993)

[12] Norman Yoffee 'Too Many Chiefs? (or Safe Texts for the 90s). In *Archaeological Theory: Who Sets the Agenda? New Directions in Archaeology*. edited by Norman Yoffee and Andrew Sherratt, (Cambridge: Cambridge University Press.), pp. 60-78.

[13] Witness the distinctions and definitions painstakingly arrived at in Henry J. M. Claessen and Peter Skalnik *(eds)The Early State*.. (New Babylon: Studies in the Social Sciences, 32. The Hague: Mouton, 1978.) This study and a later series of volumes by the same editors marked a amjore moment in the comparative study of earlt states, distinguished by the belief that this was a form which was universal and identifiable across cultural contexts. Notably one of these seminars drew considerable ancient Indian participation and was the basis for a considerable effort at theoretical formations on these grounds of universal clearly identifiable and

pristine states, while others may have emerged in other manners, via the usual recourse to a logic of diffusion and contact. In sum, the most powerful revisionist critiques draw our attention to how by using the category of the state most evolutionist narratives and approaches have merely made reference to a preconceived notion of the organisation of authority, politics and ideology rather than attempt to understand and describe the diachronic processes that lead up to it. While such a critique is tantamount to a severe debilitation of the category itself, which is arguably essential, the challenge and the project of describing the emergence of "early complex polities" in other terms is liberating as well as daunting.[14]

It is perhaps the more widespread but less routinely articulated dissatisfaction with the usage of the category of the state which has led to the increasing engagement with the concept of hetararchy. Recalling the idea of the ranked society, Crumley had drawn attention to the situation, which was equally plausible to arise, of a number of actors or bodies which are capable of being ranked in a number of ways with regard to each other, rather than just in a simple hierarchy.[15] This complexity of power relationships and their evolution has proved to be a powerful if albeit slightly general theoretical tool. Thus, heterarchical constellations run the risk of being any arrangement where a clear hierarchy among elements does not emerge – a useful shorthand to describe polyvalent situations but one perhaps without the explanatory capacity to suggest the dynamics such a situation may entail. Nonetheless, it has along with a range of engagements with the computational and modelling impulses of 'complexity theory' –became a milestone in the search for alternative and more 'flexible' theoretical constructs which can describe the cultural evolution of societies. It is this search and quest for viable alternatives to a dominant paradigm that still seeks to sweep a major and definitive complex transformation under the carpet of a break and an abrupt step up the ladder to the form of the state which is valuable and which this discussion seeks to highlight.

The second and perhaps even greater contribution of the Americanist paradigm has to be the profound change this tradition of research had brought about in the manner in which such theoretical questions can be studied with reference to the ancient past. Since the 1950's Americanist archaeological practice has evolved increasingly sophisticated practices of archaeological survey and

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recognizable evolutionary forms. Claessen, H.J.M. and P.Skalník (eds.) *The Study of the State*. (The Hague: Mouton 1981).

[14] Smith's program is even more ambitious and seeks to lay solid foundations by providing a new and clear definition for the realm of the political so that a moment of transition can be identified not in the emergence of the form of a state but rather of the conjunction whereupon such forms of political organization come to supercede all other forms of political organization in a given society.

[15] Crumley's original definition is as follows: Heterarchy is the situation where elements are either unranked or have the potential to be ranked in a number of different ways depending on conditions. Crumley, Carole Critique of Hierarchy. In A Dialectical *Power Relations and State Formation*.(Washington: American Anthropological Association Thomas C. Patterson and Christine, 1987) Ward Gailey, eds., pp. 155-168

has generated a vast and extensive literature about their methodology and the issues at stake in implementing and interpreting the results of such an exercise in the investigation of prehistoric societies. [16] Indeed, the development of this approach stems with a deep engagement and an exercise in generating data which could answer to and generate perspective about the emergence of cities, states and civilizations and respond to the manner in which these questions were being contemplated at the time. The significant features of this praxis, especially in sharp contrast to those which are prevalent in South Asia relate to the clear choice of a region and a problem specific to it which informs the research design. These surveys stress the importance of understanding coverage and modelling it according to the needs and demands of the problem being investigated. Thus once on foot, ground-walking designs have varied from crawl surveys and full coverage in the hope of approximating as much as can be recovered or designs which sampled only certain percentages of certain areas and this attempted to probabilistically characterize the archaeological settlement for the entire region. The word region is key and is important bounding frame which limits the scope of the study and yet defines also a unit which if investigated under such parameters then forms a whole comparable with other such forms.

R.M. Adams' work constitutes the most significant corpus which engaged with neo-evolutionism and the Urban revolution while constituting an entirely different paradigm of the archaeology of the city.[17] Rather than seek to define and explain the city Adams sought to locate the urban settlement in its own world by rigorous survey of the region. By systematically and thematically mapping distributions of sites, analyzing settlement hierarchies and by sampling surface artefacts a record of changing material culture is generated. By a study of distributions and concentrations across a landscape a statistical analysis seeks to make apparent the trends which convert a landscape of settlements into the hinterland of an urban centre.[18]

[16] For significant and full length statements form other and yet related traditions the work of Susan Alcock and S.E Alcock, *Graecia Capta: The Landscapes of Roman Greece*.. (Cambridge: University Press, 1993) JL Bintliff, AM Snodgrass 'The Cambridge/Bradford Boeotian Expedition: The first four years' - *Journal of Field Archaeology*, , Vol. 12, No. 2 (Summer, 1985), pp. 123-161 Suzanne Fish and Stephen Kowalewski, (eds.) *The Archaeology of Regions: The Case for Full Coverage Survey*, (Washington, D.C., 1990) The most recent and comprehensive review of the subfield which I have drawn upon heavily is Kowalewski, Stephen A. 'Regional Settlement Pattern Studies'. *Journal of Archaeological Research,* 2008, 16:225-285

[17] For a critical appreciation looking back from the late 1990's of the contribution of R.M. Adams see Norman Yoffee "Robert McCormick Adams: An Archaeological Biography" *American Antiquity*, Vol. 62, No. 3. (Jul. 1997), pp 399- 413

[18] R.M. Adams, *Land Behind Baghdad: The Settlement History of the Diyala Plains*. This text remains an example of how a thorough investigation with the evidence of an archaeological landscape helps present a very different picture than what a purely theoretical attempt at explanation could. The Diyala survey helped conclusively argue against the theories of Oriental Despotism and this incarnation of the Asiatic Mode of

Adams understood that while Childe had labelled his considerations as the Urban Revolution his ideas, especially in the context of his larger works, he had meant to describe the larger process of the emergence of 'civilization'. Adams further understood the stagism of his contemporaries and that of Childe as "Their value is primarily heuristic: useful schemata help to identify and emphasize key institutional changes and to introduce their functional interrelations and varying raters of sociocultural change…. Their usefulness can be measured only against the content of real historical sequences". In contrast to the assumptions of social anthropology which sought to anticipate the key processes at work Adams insisted only an abstract cultural core of processes was universal the forms and specifics were in his comparative vision distinct and definitive. Thus he stressed the need to identify these agents, institutions and processes and came to write about the role of the temple and the priest, identifying a key "coercive stage" as well as vital transformations in kinship as being at the core of the Mesopotamian example. Adams argued that "an evolutionary approach necessarily seemed to involve an emphasis on rapidly developing, *emergent* institutions. [emphasis original]"[19]

For the rhetoric of empiricism to be played out in praxis much progress has been made in the methodology of survey-work in the years since Adams. The profoundly inter-disciplinary nature of modern archaeology allow even large scale projects to attempt "full coverage" and generate data about the ecology and climatic patterns, changes in land use and demographic patterns as part of only a basic set of indices.[20] While the influence of landscape studies has generated a new social archaeology of spaces and settlements their has been considerable exploration and comparative study of ways to measure distributions: Central Places Theory, Peer-Polity interaction models and the Rank-Size method being the most frequent of those used.[21]

Production as evolved in the work of Wittfogel who thought the state had come about through the need to construct and maintain large scale irrigation projects. Adams demonstrated the absence of these in the region till the late Byzantine period highlighting how early communities in the era of urbanization utilized local drainages and developed small scale canals with low maintenance demands which could easily by supported by the community itself.

[19] For the classic statement on the a comparative study of evolutionary processes, *The Evolution of Urban Society*. As Yoffee argues it is this book as well as Adams' other work which popularised and countered Childe's arguments in American anthropology and the global study of ancient cities. Urban Society remains a deeply dialogic text with many a section devoted to demonstrating how much complexity of evidence eludes the neat formulations of Childe and neo-evolutionary thought. For a more focused statement of some of these issues as well as the polemic against armchair social anthropology as well as the quotes, R.M. Adams "The Evolutionary Process in Early Civilizations" in Sol Tax (ed.) *Evolution After Darwin*, (3 vols.) Vol. I, *The Evolution of Man* (University of Chicago Press, 1969), pp. 153-168. From the same article "If the evolutionary approach is not to lead us into the cul-de-sac of self-contained causal theories, it seems essential that we recognize the complexity and interdependence of events leading to the major stage transformations".

[20] A standard introduction is Collins and Molyneaux, *Archaeological Survey*, (2006, Altamira)

[21] The influence of Central Places Theory on archaeological distributions suggestive of central marketplace in particular have been profound. In tune with the ear of systems theory in the 1970's a web of services,

The aim of these surveys has been to create a reliable record of the prehistoric settlement patterns across a region. This dataset which is often created at the cost of much time, energy and labour is sought after as it is perhaps the best possible record of the dynamics of cultural change within a region. More explicitly, the manner in which settlements are distributed and are related to each other functionally, symbolically and more broadly socially and how these patterns change over time is regarded in this paradigm as the most basic of datasets upon which modelling, comprehension and theorization can begin. At different points in time, different theoretical predilections have meant that different analytical techniques have been brought to bear upon such data. A simple level of analysis has related to the existence and specifics of a tiered settlement hierarchy, sometimes represented as a Rank-size diagram, which powerfully illustrates these trends graphically. Under the influence of systems theory in particular but also owing roots to a geographical predilection the application of Central places theory has been another such tool alongside more traditional geographic measures such as nearest neighbour analysis. More recently however, there has been a trend towards analyzing what may be termed the absolute demographic trend. While the establishment of site size during survey is a problematic and difficult issue, particularly for multi-period sites, it is undeniably possible to develop a gross measure. Thus surveys can be characterized today as being aimed at generating a gross settled area statistic for each period under consideration, as this constitutes a gross and absolute measure of the total demographic trends, and thus valuably contribute to a record and the best possible quantification of settlement growth as well as providing us with opportunity of studying reversals and contractions. Having established this basic measure, surveys today have sought to then understand the emergence of political centres and economic activities within this landscape.

The term landscape itself, has become deeply implicated not only in archaeology but also in many other varied projects of historical investigation. It is important to note that while landscape archaeology is a burgeoning and vibrant field, the manner in which the notion of the landscape is constructed has and continues to vary from researcher to researcher. It is intended here to merely raise two important aspects of this component of the modern survey project. It has been acknowledged that it is not enough to study past societies within a region but it is also equally important to place them in the respective pasts of that region itself, specifically in terms of environmental and geomorphological parameters. But it could further be argued and has been that such a mechanical compartmentalisation prevents us form recognizing the essential diachronic relationship between all societies and they environment they inhabit, mould and reconstitute

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dependencies and functions were seen to define landscapes towards agglomerated centres. A closely-knit space defining different yet mutually responsive neighbouring networks were theorized as being generically subject to the controls of societies evolving as peers.

through every act, material and symbolic. Thus landscape archaeology has helped raise important issues not only of historical ecology but also of space and its social construction and capital and has engendered the documentation of a much richer range of traces back to the past.[22] Critical and accurate survey methods thus have become an essential part of the archaeological exercise and have now become indispensible as they provide a range and a level of data which the usually privileged excavation strategy cannot hope to.

Archaeological surveys in South Asia: 'Exploring' the record

The practise of such modern systematic surveys in South Asia have been so sporadic and rare that they almost seem to have not existed. The practise of survey itself however has deep roots and its roots are allied to and found in colonial investigations and efforts to generate meaningful and useful knowledge about the landscape.[23] Cunningham's massive surveys are tremendous efforts born out of the conviction that a solid historical geography is essential for the consideration of the basic history of a region. The massive burden of conservation upon the Archaeological Survey of India, and Marshall's energetic program towards the same end meant that much energy towards filed exploration and documentation was expended towards the location and evaluation of monuments fit for national level protection. Modern surveys, attempting to locate sites for future excavation and to understand the distribution of cultural complexes however, begin only in the post-independence era.

A major element of Wheeler's quick and ready program of culture-historical archaeology was the production of a typology which was based amazingly enough upon whole ceramic wares, rather than say specific forms and types. An unintended consequence of this peculiarity, which to date has hardly ever been overcome, is that all survey data has been produced for these equally large labels which span huge expanses of time. It is debateable whether better indexes of fossil-types could have been identified at the Wheeler's stage when very little concrete information existed but this is a practice which has hardly been attempted even till today. The traditional mode of practice of survey by the Archaeological survey of India has consisted of a village-to-village or jeep format, wherein within a given area, as many villages as possible are visited and sites ascertained primarily on the basis of local inquiry rather than systematic field walking. The rise of even this level of systematic

[22] Wilkinson, T.J.. *Archaeological Landscapes of the Near East*. (Tucson, Arizona: University of Arizona Press. 2003) is the monograph which has definitively set the paradigm for a new range of perspectives on studying archaeological landscapes. For a more detailed study of a single surveyed region Wilkinson, T., Miller, N., Reichel, C. & Whitcomb, D.. *On the margin of the Euphrates settlement and land use at Tell es-Sweyhat and in the upper Lake Assad area, Syria*. (Chicago, Illinois: Oriental Institute, Chicago, 2004)
[23] Ian J. Barrow, *Making History, Drawing Territory: British Mapping in India, c.1765-1905*. (New Delhi:. Oxford University Press, 2003)

survey itself was not regular nor institutionalized till the late 1970's when the acute absence of landscape and regional level data was articulated.

There have of course been individual and institutional exceptions. Suraj Bhan and his students have provided a level of coverage for Haryana and Punjab that is unmatched, but the incomplete publication and the lack of site sizes in many cases hampers the usefulness of their datasets. The Allahabad University for example set a precedent for prolonged investigations in the Son and Belan valleys and have archived together a massive amount of information on prehistoric cultures but again one which is deficient on spatial information. Individuals in the ASI have made a difference by regularly, and each year, reporting a series of sites from the areas within reach of their current posting. Occasionally the survey's exploration and Excavation branches have launched problem oriented surveys and have documented a number of sites for their chosen regions.[24]

The problems of this massive, unsorted and piecemeal reported data mountain are formidable and at times appear insurmountable. It can be estimated that geospatial information such as latitudes and longitudes are available to 1 to 5 % of all sites which were published in the *Indian archaeology- a review*. The fate of explored sites which did not get published in this annual digest is far from clear and would require a monumental effort such as that commissioned to the National Mission on Monuments and Antiquities to collate and bring together.[25] Geospatial data aside, the chronological span often reported can be ambiguous and may not be consistent across different workers. Further complicating this, is the very nature of the jeep survey. Whilst it lets one cover large territories it fails to provide any meaningful way of answering to an idea of what sort of area was covered within what has become the natural unit – the administrative tier of a district or a block or tahsil. Thus, almost all surveys have left no record of areas they did not venture into at all and we have no way of estimating what percentage of the total area the investigated area actually speaks for. Compounding these difficulties if the fact that while site sizes are hardly ever mentioned, there exists also a deep set bias against reporting medieval and early medieval mounded sites, which further qualify the sort of dataset such a dataset represents. This has operated in two ways, either such sites have not been reported at all or equally often there has been a note identifying NBPW and other early ceramics at

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[24] For a comment upon the history of surveys in Independent India see R. C. Thakran, 'Implications of Partition on Protohistoric Investigations in the Ghaggar-Ganga Basins'*Social Scientist*, Vol. 28, No. 1/2 (Jan. - Feb., 2000), pp. 42-67 also sections in Suraj Bhan, 'Recent Trends in Indian Archaeology', *Social Scientist*, Vol. 25, No. 1/2 (Jan. - Feb., 1997), pp. 3-15

[25] Lahiri, N., Sethi, V., and Purushartha, B. (2002). Historical archaeology of India: An outline of the work of the Archaeological Survey of India. In Settar, S., and Korisettar, R. (eds.), *Archaeology and Historiography: History, Theory and Method, Indian Archaeology in Retrospect, Vol. IV*,Manohar, NewDelhi, pp. 71–115. For an understanding of the tasks and project of The National Mission on Monuments and Antiquities I am deeply indebted to conversation with Dr. S.B. Ota its Director.

the site, but not detailing the fact that occupation had continued for often what is a whole millennium more.

The problems of reportage and a suitable forum for the same have also been problematic. While the IAR remains the best digest for unsystematic and casual finds or small scale explorations and accidental discoveries it has only rarely served as the best outlet for the publication of detailed survey information. The earliest surveys in the 1950's for example by A.Ghosh in Ganganagar and Bikaner and by B.B. Lal in the upper doab have remained unpublished and are only related to in small articles rather than comprehensive publications. By the end of the decade the IAR format was elaborated and tabular presentations of abstracts of survey results became commonplace. Yet it is perhaps this all too abstracted element which proved to be the next major difficulty as it prevented the publication of much of the information which was collected by ASI and other surveyors. In fact, it is the publication of such tables which came to guide future surveys as only needing to establish ware categories at a site rather than providing a better description of the extant site, estimating areas and documenting the status of the site. The journal *Ancient India* provided scope for fuller publication and allowed greater room for recapitulation and the formulation and presentation of arguments. [26] It is after its demise in particular that such attention, albeit less frequently was voiced and raised in publications such as *Puratattva* and *Man and Environment*, both of which have traditionally more been geared towards the publication of synthesising articles and brief communications of excavation results rather than comprehensive survey projects. This lack of a suitable forum is something that is worry and a cause for concern as perhaps even the most sustained and well documented program of exploration by the ASI, that in Punjab and Haryana, as led by J.P. Joshi in the late 1970's found publication only in an edited volume, which while landmark has already become out of print and increasingly impossible to get hold of.[27]

It is in this context that the efforts of the Uttar Pradesh State archaeology department have been remarkable and timely. From the mid 1980's they initiated a program of systematic, village to village exploration in districts of Kumaon and Garhwal to document temple architectural traditions as well as any other form of ancient stone architectural and sculptural vestiges which could be noted. What is noteworthy about these surveys is the manner in which they were conducted, in a block by block fashion, systematically covering a declared number of villages in segments of the study area and a prolonged multi-season approach. Moreover, these have found publication in the form of a series of

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[26] Ai No 9 protohistoric investigations and YD Sharma

[27] Joshi, Jagat Pati, Madhu Bala and Jassu Ram, (1984), The Indus Civilization: a reconsideration on the basis of distribution maps. In, BB Lal and SP Gupta, eds., *Frontiers of the Indus Civilization*, Delhi, Books and Books, 511-30

small monographs which allowed space for the discussion and documentation of the important and far more profuse finds of an hitherto ill-understood and under documented tradition of early medieval and medieval temple architecture.[28]

It is in 1990-91 though with the inaugural issue of *Pragdhara* that a paradigmatic change can be seen to have begun to occur with the institution of this new forum. Unlike the infamous delays often bedevilling official government publications this new journal has come out each year and is now in its 17th volume. What is significant for the discussion here is that by providing the space for discussion and full length publication the journal has provided momentum and new direction in survey methods. In its 17 volumes the reports of more than 20 major surveys, mostly within the state of Uttar Pradesh, have been published and have contributed arguably the most substantive and collated datasets for the regions they have attempted to cover. While survey methods have remained mostly the same, the transformation has been in reportage and publication standards. All surveys conducted by the Department itself have come accompanied with maps and a comprehensive list of all sites, previously known and freshly documented which now serve as the most comprehensive archaeological gazetteers for those districts. Publication itself has come to include a description of the site, its present condition and total extant size, the various ceramic wares and any other antiquities found at the site and a description of any other significant features such as topography or constructed features such as fortifications. What is even more significant that as a response to the complexities of defining cultures and identifying them on the basis of ceramics the publications of survey results especially those conducted by the UP State Department have included the drawing of key ceramics forms found at sites alongside their description to allow for a much better understanding of how cultural type-fossils are being identified and to help build towards a wider spectrum of such types and make one's methods clear and documented. These are significant departures and over the course of the 1990's and the present decade the combined efforts as published in the seventeen volumes allow for a renewed engagement with settlement patterns and their complexity which was simply not possible earlier. A related and similar transformation in attitude towards survey and its methods and publication has been witnessed in the projects led by D.P Tewari who has surveyed chosen to survey areas which had quite alarmingly hardly ever been covered in the post-independence era but also has followed a similar standard in

[28] The first of this series was, Hemraj, 'Katyur Ghati Mein Puratattvik Sarveksana', (Lucknow, UP State archaeology Department, 1988) Subsequently a report was published in Monograph form for almost all of these surveys by the Uttaranchal unit.

publishing what was documented.[29] It must be said however that there has not been any awareness however of the need to also document how and which areas specifically were covered so as to enable future efforts to most successfully direct their efforts. Further, these projects in surface archaeology remain exercises in culture-historical archaeology, they have not seriously engaged with the surface archaeology of these sites as a key tool with which one can generate meaningful and crucial information about the site being surveyed.

A final comment must also be made upon a herculean and multi-season survey investigation into the archaeological geography of the Ganga plains and the routes from this region into the deccan by D.K. Chakrabarti.[30] Published as a series of articles and then organised into a series of three monographs this massive project, born out of dissatisfaction with the manner in which survey information was available is a majored contribution to the study of the region. In defining itself as a project in historical geography Chakarabarti set himself the task of exploring and considering a fair sampling of sites in a set of regions and 'sectors' which stretched from coastal west Bengal to the Himalayan foothills of Uttaranchal, and in a separate and less intensive exploration into the deccan. The work is remarkable for many reasons. It is undoubtedly the most comprehensive engagement by any single person with the archaeological landscapes of North India since Cunningham. Not for these reasons alone it is also one of the only sustained efforts which have tried to engage with the colonial descriptions of archaeological remains beyond efforts which relate to a single site or so. Thus Chakrabarti's work constantly relates back to Cunningham, Fuhrer and Buchanan and tries to make sense of the profound transformation of the landscape in the intervening 100 to 150 years and the manner in which that has impacted upon and destroyed archaeological landscapes. In terms of documentation Chakrabarti berates the lack of field notes, pertaining to the site, its location, finds and associations in traditional Indian surveys and cites this as one of his motivations for embarking on this project. His own documentation of sites, however abbreviated understandably by the lack of time is one which is marked by pointed and often acute observations about their relevance to what is generally assumed about the region.

The most significant aspects however are the documentation within each region and sector of a number of sites and a discussion of how they relate to each other. Moreover, Chakrabarti's effort is

[29] D.P. Tewari, *Excavation at Saunphari and Exploration in Ganga plain*, (2004, Tarun Prakashan, Lucknow) DP Tewari and Durgesh Srivastava, *Archaeological remians of Gonda and Balrampur districts* (, Tarun Prakashan, Lucknow, 1999)

[30] Most recently, D.K. Chakrabarti, *Archaeological geography of the Ganga plain : the upper Ganga (Oudh, Rohilkhand, and the Doab)* (New Delhi: Munshiram Manoharlal Publishers, 2007), Chakrabarti, Dilip K. (2005), *The archaeology of the Deccan routes : the ancient routes from the Ganga plain to the Deccan* (New Delhi: Munshiram Manoharlal Publishers) xiv, 174 p. --- (2001), *Archaeological geography of the Ganga Plain : the lower and the middle Ganga* (New Delhi Bangalore: Permanent Black ; Distributed by Orient Longman)

singular in its effort to try and produce an estimate of site sizes and begin to model and understand the patterns of settlement hierarchy. Again while his figures are often reckoned and ballpark estimates they are crucial and critical as they provide one of the few such datasets for the ganga plains. Further, Chakrabarti's efforts map out the growing concern with precise spatial data as his own documentation begins with a mere listing of the name of the site, or of the number of the toposheet, to the publication of an estimated latitude and longitude to the use of GPS devices to do the needful. In innumerable cases, Chakrabarti has been the first to produce such a documentation of location for a whole range of sites. In addition, in selected cases there has been an engagement with the material cultures and arguments based on the lack of consideration of the same. Chakrabarti has provided an extensive discussion and documentation of sites in western Uttar Pradesh in the region from Saharanpur to Mathura where seem part of a 'Harappan tradition' on the basis of the ceramics they yield but have not been studied nor considered. If anything criticisms can be made on two basic grounds; one the conception of historical geography is arguably static and does not factor into its documentation and suggestion of routes and alignments the possibility that these may have changed significantly according to time and period. While the focus has been on larger patterns which Chakrabarti evokes with ease and acuteness there is perhaps a reluctance to engage with smaller units in greater details which is a necessary consequence of the choice of the scale the study has been conducted at.

In summary, this section has tried to outline that over the last two decades the praxis of archaeological survey, especially in Uttar Pradesh has undergone a major change. Whilst this may still be considered a transitional movement towards still higher standards and new methods, it is important to outline how these changes have brought the archaeology of Uttar Pradesh in particular to a new juncture and have been seminal contributions alongside the landmark and epochal excavations of the 1990's and the first decade of the twenty-first century. This dissertation attempts in the next chapter to build a new narrative and a fresh engagement with this archaeological data and suggest that a significantly different picture emerges upon such an exercise. However as the first part of this chapter argued the conceptual baggage with which one engages with the study of archaeological cultures is fraught with pitfalls and dangers and the next section draws attention towards a series of approaches which have tried to forge a different approach to these questions, one which this dissertation endorses and attempts to follow upon.

Processes and not Polities? Integration, Localisation and Regionalisation eras and the resistance of the South Asian archaeological record to easy theorization

If the history of South Asia were to be reduced to that of the river valleys of the Indus and the Ganga then in it could be argued that of the modern historiography and disciplinary bias in the inquiry into the ancient pasts of these valleys is starkly divided. One is primarily based upon archaeology and the other upon texts. The argument that the study of the archaeology of the Indus valley is considerably better progressed than that of the other regions can be easily sustained, owing of course to the attention it has gotten because of the Harappan civilization. The focus from an early stage by many scholars such as Dales and Mughal upon the multi-phase dynamics of the civilization and an investigation of the same has led to a long-term and sustained effort at generating survey data which are sensitive to the needs of documenting such changes and periods.[31] The Indus region also has the most sustained series of radiocarbon dates and a chronology has been built up which places these regional culture, sub-cultures and the phases of their interaction quite within a well established chronological and spatial framework. The experience of the region however in understanding the course of socio-economic evolution and the act of labelling and naming it have however despite this been equally tortuous and ridden with rhetoric and discourses other than those arising from the most apposite reading of the evidence. While beyond the pale of this dissertation the dominant tropes have been those which govern our imaginings of Harappan societies as being uniform and similar, as being rigidly planned and organised liked their societies and their bricks, and most infamously as being peaceful folk who shied away from any form of war or militarization and yet built massive fortifications. In recent years there has been the concerted and multi-pronged approach to get away from these discourses and tropes and return to a more empiricist and grounded evaluation of the course of the development of structures which govern and frame the worlds of these communities within the larger region.

Two trends are immediately discernable, that to comprehend the eventual climax of the mid second millennium a much longer vision serves one well and serves to focus attention of the region and the polycentric growth and expansion of culturally distinct communities. Equally it focuses attention on the ancestry of interaction and communication something which all too often believed to have a much later origin implicated within given received wisdoms of social evolutionism. Another equally important step has been the distancing of this broad approach and paradigm from a conception which privileges stagist and revolutionary episodic moments of change, such as that concerning the 'Neolithic'. Instead attention has been drawn towards the long and steady march of more and more complex food acquisition and production strategies which begin and continue down from probable

[31] Rafique Mughal , *Ancient Cholistan: Archaeology and Architecture*. (Lahore: Ferozsons (Pvt.), Ltd., 1998)

environmental changes associated with the transition to the Holocene. Thus a schema of organising societies has been proposed which looks at the region as whole and attempts to map out the growth of gross societal patterns as its primary index towards developmental stages. While this in a sense is a indeed a new stagism, it is related to and born from survey data and actual trends rather than theoretical premises and thus affords a completely different rendering of key social processes and transformations.

With differences these are some of the trajectories which have been proposed: they use terms such as Formative, Regionalization, Integration and Localization phases to describe the course of the long Indus valley tradition.[32] The stress is thus not on pigeon-holing archaeological cultures into typologies of known types of societies such as Neolithic or Chalcolithic or Bronze age but to be able to describe the change from Early Village farming communities to communities which are regional in scale and articulating a distinctive material culture and thus identity. The transformation to the mature Harappan is posed more as the social processes of integration rather than one which exalts and seeks to push away such questions behind the label of civilization. A second level of engagement relates to the modalities of the production of certain distinctive elements of material culture, in particular those of craft production in materials such as stone, shell and metal working. An examination of these activities suggest a long antiquity of such practices, going to back to beginning in the early Formative phases and a tremendous rescaling, reordering and expansion of range complexity and output during the Integration era. Detailed excavations and studies of the contexts of such production have led to a renewed examination of the whole question of complexity and socio-cultural evolution. The question that has been asked is that how does the development and efflorescence of Indus technological virtuosity inform us about the manners in which transformations of society as represented and encapsulated in urbanism. Posed thus, these are difficult and painstaking questions about how the control of resources and production as well of producers may in fact be eloquent records of the process of social change rather than merely being understood as a marker of civilization and its inherent greatness.

It is this model of change and continuity as a measured in various registers of the archaeological record that this dissertation seeks to follow and apply. It is arguably the most simple and yet powerful format of inquiry which allows an examination of distributions and cultures to speak, as far

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[32] Shaffer, J. G. (1992). The Indus Valley, Baluchistan, and Helmand traditions: Neolithic through Bronze Age.In Ehrich, R. W. (ed.), *Chronologies in Old World Archaeology*, 3rd edn., University of Chicago Press, Chicago, IL, pp. 441–464. and Shaffer, J. G. (1996). South Asian archaeology 1995: New data, subdued interpretations. *Antiquity* **70:** 995–998. and J.M Kenoyer, 'Early Developments of Art, Symbol and Technology in the Indus Valley Tradition' *INDO-KOKO-KENKYU ----Indian Archaeological Studies*, 2001 ,Vol. 22:1-18

as is possible for themselves, rather than through the layered languages of received wisdoms and their categories. It is also an effective manner of approaching phases and different epochs of the past without subscribing to any flavour of social evolutionism and the categories and implications that such a narration would entail. The general approach of a regional tradition is in itself not unproblematic but it is arguably, the least so, and is applied to the larger Ganga basin in the following chapter.

I take this system of describing the processes at work with a constellation of labels that refers to the developments of the complex and relates it to the larger world around it as extremely useful and liberating. It provides us with a vocabulary that allows us to describe the trends and trajectories of cultures in cases where we do not have sufficiently detailed data to present analysis in the manner in which such an analysis of settlement patterns would usually proceed. This system of a regional tradition is the one that shall be broadly adopted for the purposes of the next chapter and a further statement shall be made about it at the end of that chapter.

Chapter 3 : Towards an Archaeological History of the Ganga Basin: Perspectives from the creation of a preliminary Atlas

Contents

I. Defining and Understanding the Ganga Basin

In embarking upon a project of studying the archaeological distributions over the long-term of the region referred to as the Ganga Basin it is wise to begin by drawing attention to the complex history

of the region itself and specifying how I understand and define the region. The designation of the Ganga Basin, as against the usual term of the Ganga plains is a deliberate and considered choice. The term basin stressed the fact that the region defined by the central trunk river of the Ganga is drained by rivers which come to it from all directions. The Ganga is joined by rivers which rise in the high Himalaya and those in the foothills and others which rise in the Aravallis, the Vindhyas and the Kaimur. In a manner allegorical of these moving waters the course of human history in the region has also followed a trajectory which is born out of and continuously constituted by these connections, rather than any isolated chain of events or of any discrete migration and movement into the plains themselves.

The basin, home to millions of people today and to a diverse mosaic of cultures through the past has been a changing dynamic and complex landscape which buries under its seemingly flat and endless plains varied geological pasts which are still only imperfectly understood. The Ganga plains are the classic example of a foreland basin, a vast alluvial expanse, linked genetically to the chain of high and mighty mountains that border them to the North. Circa 2 million years ago when a last major phase of Himalayan uplift is known to have occurred and transformed the mountainous North into a configuration similar to the present. As the continents collided and threw up these mighty ranges, forces of planation brought equally massive quantities of eroded sediment into the foreland and thus constituted plains below. As mountain streams coalesced, gathered and rushed past the foothills into the open expanse they shed their sediments laying thin blankets upon blankets of sediment into this region, recasting its topography and constituting a new region. These forces are ancient and are massive, as is evidenced by the facts that the Siwaliks themselves are uplifted sequences of such deposition and that closest to them the alluvial depth has been estimated to be of the range of considerably greater than a kilometre in depth. As these plains grew, the streams and rivers feeding them have carved and incised new paths through them in their journey to the sea and the mass of the alluvial plains today are massively reworked and constituted by a complicated history of alluvial change as determined by factors such as topography, climate, neo-tectonics and as a recent major debate suggests is rarely amenable to simple generalizations.[1] Until even fifteen years ago it had not been possible to suggest a general vision of the manner in which the geomorphic evolution of the Ganga plains had proceeded nor suggest the major periods in which change had occurred. A paradigm existed which broadly understood regions of old and newer

[1] The major contributions to an ongoing and rich debate about the major forces which have given shape to the Ganga Basin as we observe it today have been I.B. Singh, *Editor, Gangetic Plain: Terra Incognita, (Geology Department, Lucknow-University, 1992)* which was a landmark collection of essays. Significant issue has been taken with a major position on the landscape evolution of the Ganga plains presented by the editor of the volume here and equally he and his associates have produced a range of case studies. They shall be cited as relevant below.

sequences of alluvium and these remained the basic characterisation without any detailed attempt to model how the entire region had come into being and indeed what were its defining features.

As of today we have a substantial literature which addresses not only the general picture and models large scale processes but has also provided some rich and detailed studies which map the variations in the many different micro-regions of this large area. The impact of all of this has been that we now have an integrated picture of the manner in which the main geomorphological units of the Ganga plains came into existence and a major dating effort has provided a basic chronology to these fundamental units of the landscape.[2] The Ganga Plain has indeed gone from being considered as a geological given, of vast and uninteresting 'plain-ness' to the current understanding of it as being a landscape which has been tremendously dynamic and has changed profoundly over the timescales of human history. It has thus also become a major task of the archaeology of the region to meaningfully integrate with these new perspectives on the past, something that shall be attempted to the degree possible herein. Caution must be expressed here about the status of the modelling of the Ganga plains as there still exists a major debate over the degree to which the generalized model accurately describes key processes and the manner in which it can be used to explain processes of landscape evolution in regions outside of the detailed case studies it is based upon.[3]

[2] P. Srivastava, 'Luminescence chronometry and Late Quaternary geomorphic history of the Ganga Plain, India' *Palaeogeography, Palaeoclimatology, Palaeoecology* 197, (2003) , pp. 15-41

[3] Tandon, S.K., Sinha, R., Gibling, M.R., Dasgupta, A.S., Ghazanfari, Parvez (in press) Late Quaternary evolution of the Ganga Plains: myths and misconceptions, recent developments and future directions. *Memoir Jour. Geol. Soc. India* This set of geomorphologists have been the most consistent critics of the proposed model of the evolution of the Ganga plain and have provided a series of constructive studies which have demonstrated the greater complexity and regional variations of the processes of landscape evolution across the Ganga plains.

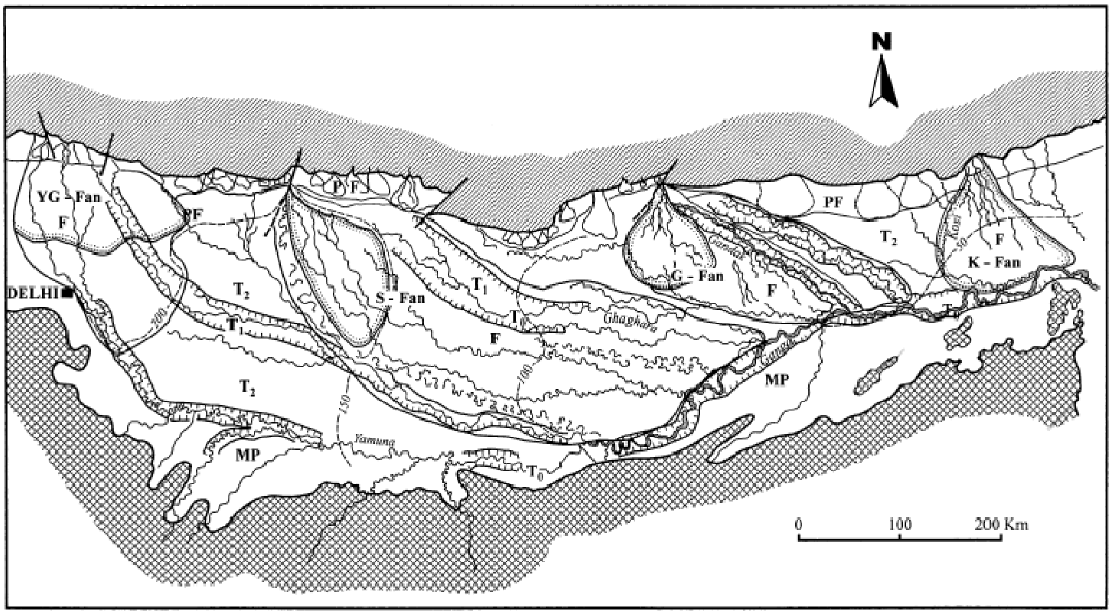


Fig. 2. Regional geomorphic surfaces of the Ganga Plain. T_2 – Upland Terrace Surface, MP – Marginal Plain Upland Surface, F – Megafan Surface (YG-fan – Yamuna–Ganga Megafan, S-fan – Sarda Megafan, G-fan – Gandak Megafan, K-fan – Kosi Megafan), T_1 – River Valley Terrace Surface, PF – Piedmont Fan Surface, T_0 – Active Flood Plain Surface.

Figure 3-1 Major geomorphological units of the Ganga plains (after Srivastava et al (2003))

The moiety in this story of hills and plains are the Vindhyas, Aravallis and the Kaimur ranges, the ancient counterparts, bounding this plain on its south. These ancient hills constitute a reminder that South Asia is built of two geological halves: the peninsular shield, embodying one of the most ancient landmasses on the surface of the planet and the young plains. Yet it is important to underscore how this ancient landmass too has been transformed by its 'new' location in the heart of an intensified monsoonal regime. What was perhaps once an ancient and denuded landscape, has witnessed dramatic changes in the recent epochs of geological time. In the eloquent words of Korisetter:

> This tectonic resurgence was of great consequence inasmuch as it was accompanied by abrupt climatic changes over the subcontinent. New landscapes emerged. The senile topography was rejuvenated. The foreland basins were filled with detritus (the Siwalik molasses) eroded from uplifting higher terraces... climate change was characterized by the onset of the seasonal monsoon including alternating strong wet and dry spells, causing intense weathering, erosion and bed load. Such processes were effective in reshaping of landscapes and modification of ecosystems in the mountains, plains and the oceans. Ecosystems were characterized by a shift in vegetation from C3 to C4. Consequently grasslands came into existence in the foreland basins, creating a habitat for grazing mammals from outside the subcontinent.... After a short period of quiescence, the Plio-Pleistocene transition was accompanied by tectonic uplift (between 4 and 2 Ma). The

> uplifted mountain ranges created large cool areas and induced precipitation of snow. This coincided with the global cooling and the onset of the Pleistocene glacial at 2.5 Ma.[4]

In the states of Uttar Pradesh, Haryana and Punjab the depth of the alluvium of the Gangetic and Indus systems have submerged the old landscape. Where once were major ridges and hills now appear plains so vast that it has been only modern geophysics which has revealed their presence underneath. Occasionally, features which once must have towered higher than most survive, and present themselves as islands of rock in this massive sea of alluvium. Such is the case at Tosham hill in Haryana or Govardhana Parvat near Mathura and at Pabhosa near Kausambi. These survivals above all serve us a clear reminder that much lies beneath, including various episodes of the human past.

As detailed in chapter one, the ideas of a vast unchanging plain, covered by a thick and virgin forest dominated the manner in which the prehistoric past of the Ganga basin was imagined. Modern experiences, especially as in the case of the river Kosi, do suggest as one of the most basic of examples that rivers can change their course, repeatedly and symptomatically, and we have ample examples of how on the other end of the spectrum that even these richly drained plains can undergo acute phases of aridity and drought. It is perhaps the latter idea, the fear and modernist anxiety about drought that made the idea of a densely forested impenetrable plain even more central to the imagined past. I stress here that there are a host of palaeoclimatic studies, based on a range of proxy records for different regions of the Ganga plains today which provide a scientific examination of past climatic regimes and the ecologies which have existed in the region. None of these support the idea of a densely forested plain, in fact from the Early to late Holocene a vast and open grassland with pockets of shrub seem to characterize the landscape. As shall be discussed below some of the earliest species of trees which are conspicuous in the pollen record are those which appear to have been brought to the region by early communities. Thus, the region and its ecology and its populations share a complex and long history of making and remaking and simple generalizations are rarely effective. I also must clarify here that through the course of the long-period of the present I do not imagine this 'natural landscape' as being simply a background upon which the elaboration of societies takes place. I recognise here that the human role is a major part of what has in different periods, been differently understood as nature and natural. Further, and with great relevance to this

[4] Ravi Korisettar, 'Toward developing a basin model for Paleolithic settlement of the Indian subcontinent: Geodynamics, monsoon dynamics, habitat diversity and dispersal routes' In *The Evolution and History of Human Populations in South Asia: Inter-disciplinary Studies in Archaeology, Biological Anthropology, Linguistics and Genetics* Edited by Michael D. Petraglia and Bridget Allchin, p. 69-96

archaeological exercise I argue here that it is extremely important to consider how the archaeology of the region also becomes part of this landscape and how it is increasingly transformed in that process. Specifically I refer here to what have been termed the processes of taphonomy, which describe and detail the manner in which living sites pass into becoming archaeological mounds, eloquently described in the metaphor of the processes which transform bone into fossil. As archaeological investigations in other parts of the world have demonstrated these are extremely important consideration to be made, especially as they can crucially mediate the record upon which we seek to base our reconstructions and visualisations of past societies.[5]

Another similar organising trope was the idea that the Stone Age was necessarily confined to places where there was stone, and that if there was no stone there could not have possibly been any stone age people. It is quite remarkable that this how pervasive this idea and the general belief that there cannot be any continuity or connections between 'primitive' populations of the mid Holocene through to later communities has been. By and large these two tropes have premised and structured the dominant ideas of the beginning of settlement in the Ganga basin, the arena which is centre stage to all the key developments of the meta-narrative. This is the manner in which an elaborate preface to what is a clearly constructed and artificial theory of origins is set up, a theory which speaks in terms of pioneer colonization and in terms of migration premised upon the clearance of land and the burning of forests. As an entry point into this narration of the preliminary trends which have been generated by the compilation and preparation of an atlas for north India the next section looks at the earliest evidence for settlement in the plains and seeks to place it in its context.

Before that it is important to make some caveats about this confessedly broad and ambitious integrative effort which spans a very large area and a very large expanse of time. This cannot be possibly a comprehensive review of every cultural tradition and group it touches upon. What this attempt is aimed at however is to demonstrate that many developments which are segmented and chained to a mapping out and narration solely in a culture-historical schema and notion of time actually bear synchronous relationships to each other. The unfolding and development of many regions are interrelated and bear important and revealing spatial relationships to one another. This is one reason why it is important and imperative to seek out their distribution and to attempt to understand the trends which emerge out of such an approach to the archaeological evidence and the distribution of cultures. This evidence is of course, presented to us and mediated through categories and ideas which are very often intensely problematic and thoroughly loaded. In the course of this effort there is a constant struggle and re-negotiation with some of these categories

[5] Wilkinson, T.J.. *Archaeological Landscapes of the Near East*. (Tucson, Arizona: University of Arizona Press. 2003)

and an effort to forge new ones which are better suited at describing the defining social processes at work. Further, an important and inescapable dimension of an exercise like this is the inherently culture-historical mould in which it is set, partly by the nature of the project and equally by the manner in which the massive data-mountain it seeks to climb has been constituted. This in itself, as this chapter shall demonstrate is not a handicap of the order that it is quite often made out to be, as long as the categories chosen are sourced from the archaeological record and not the tendentious interpretation of textual traditions. I am however deeply aware of the limits that a culture-historical taxonomy chains our visualization of ancient communities to, nonetheless a study of this large a region and one which seeks to integrate over a 100 years of survey and excavation data must use the categories of the literature it draws upon in order to be comprehensible. Culture-Historical archaeology has often been taken to have been a limiting and crude paradigm of understanding material cultures, which it is indeed, and in many ways while this present endeavour attempts to break out of these binds it shall also remain constrained within them on many fronts.

Specifically, it is the argument of this Chapter that in many regions of the Ganga basin there exist discrete and distinctive archaeological cultures which have a tremendous bearing upon the archaeological history of the Ganga plains. These cultures have for many reasons been marginalised in the manner in which they have been considered, the most common forms of such neglect being their ordering on a social-evolutionist stagist schema or their apparent unlikelihood of ever qualifying as bonafide 'Aryan'. It is towards a connected and meaningfully integrated narrative of these cultures that this effort is intended. The discussion shall necessarily be episodic and often truncated in the interest of brevity, but in cases such as that of the earliest evidence of occupation in the Ganga plains, where the issues at stake have hardly even been raised concertedly it shall be extended.

II. The 'Mesolithics' of the Ganga-Vindhya region and the archaeology of the early communities

In the 1960's A.Ghosh led a group of students from the Archaeological Survey of India's Institute of Archaeology to Mathura as part of there study tour. In the course of the study of the Mathura region they also visited the Govardhana parvat, a site still revered in the local religious landscape as is evident from its name. To their surprise in the midst of the Ganga plains they found an extensive

Acheulian and middle Stone Age distribution.[6] It is argued here, and the case has been made forcefully over the last decade that this is just one example of the residual trends of vast prehistoric landscapes which are now buried. This massive taphonomic issue has complicated our consideration of the history of settlement in the region for far too long and a consideration of the evidence form the entire region reveals that such instances while exceptional suggest an entirely different picture.

On the littoral of this massive sea of alluvium it is possible to locate Early Stone Age localities in every possible direction. This is suggestive and even as we have still no methods which to compare these varied assemblages yet it does suggest a picture whereby the lack of positive evidence need not make us foreclose the possibility of a settlement of the plains in the earliest of known cultural epochs. A recent effort at modelling stone availabilities in relation to monsoonal differences in the ability of hominins to have traversed landscapes has taken an innovative effort at conceptualising such issues. Yet it is the position taken here that without greater knowledge of the sedimentation histories in the deep past of the Ganga basin it is perhaps premature to conclude that "The floodplains of the Indus and Ganges may provide one example where early hominins were generally unsuccessful."[7]

The principal grounds on which the present argument for the need to have an open mind about Early stone Age settlement in the Ganga Basin is based is the extreme adaptive success which is visible in the succeeding phases. It is not the purpose of this chapter to engage with the significant and varied changes in the occupation history of the Northern subcontinent in the Middle Palaeolithic but rather to provide a discussion from the period of the early Holocene onwards, i.e., from about 12,000 years ago. For the intervening period two observations shall have to suffice: a major effort has recently been made to model the dispersal of hominid groups on the basis of the purana basins and has met with considerable success in its explanatory capacity and insightful observation about the resource potential these areas held for such groups. In particular, in the region under study Korisetter points out two regions of particular adaptive success and density of settlement, the Raised region of Madhya Pradesh and the Son-Belan valleys, the latter of which shall be considered in more detail below. Secondly, notice must be taken of the evidence from Kalpi, a site on the Yamuna in Kanpur district noteworthy for the fact that at this location the Yamuna presently flows through a channel more deeply incised than anywhere else, thus exposing the best known

[6] The site was revisited and explored more comprehensively in RV Joshi and MC. Joshi in 1974, for which a discussion was published IAR 1974-75,p.48. A.Ghosh's visit has been well known but was not published itself.

[7] Robin Dennell, ' "Resource-rich, stone-poor": Early hominin land use in large river systems of northern India and Pakistan', in *The Evolution and History of Human Populations in South Asia: Inter-disciplinary Studies in Archaeology, Biological Anthropology, Linguistics and Genetics* Edited by Michael D. Petraglia and Bridget Allchin, p.41-68

sedimentary archive for this region. An examination of these sediments revealed a hitherto un-encountered and un-contemplated assemblage: a middle Palaeolithic assemblage of primarily bone tools, presumably fashioned from the bones of a slaughtered elephant dating to a period c 40,000 years ago.[8] This points to the strong possibility that the alluvium conceals the records of a larger occupation of the plains that we have been able to observe.

In the consideration of the evidence of what can loosely be termed the late stone age for the Son and Belan valleys it is readily apparent that the mass of evidence is so complex and inter-connected that drawing a temporal line through it or parsing out cultural periods has been a difficult and trying task. This is paradoxical because it has a rich and complex series of late stone age cultures, all of which are known from the evidence they have presented in excavations as well as from their identification in large numbers of localities and sites in the region via survey.[9] It would require a major undertaking to take stock of the combined testimony of the more than 700 known sites and their varied contexts. The discussion here shall engage with them in three major themes: firstly, the manner in which they have been studied and understood and the cultural taxonomies that have been created to label and locate them. Secondly, it is important to place these cultures in their chronological and ecological contexts and consider them as agents and actors in a complex and changing Ganga-Vindhya region. Finally, the cultural evidence from these cultures, considered together constitutes a record with many registers of cultural complexity, none of which have been evaluated for their consequences towards succeeding epochs. The third section shall attempt this.

Even in the early 1960's and 1970's when the Allahabad University, and others launched large scale annual expeditions into the Vindhyan region and the many small and large river valleys of this region, it was apparent that the stone age culture sequence displayed a variability which burst out of the traditional tripartite consideration of such cultures. While Acheulian and Middle Palaeolithic assemblages were easily characterised and labelled almost every other investigator in the region has encountered a patterned series of cultures in what in other areas has generally been covered under the umbrella of the Late Stone Age. Further the use of chipped stone tools, continued into context which were being labelled and understood as Neolithic and Chalcolithic. What makes the region

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[8] Tewari, R., P. C. Pant, I. B. Singh, S. Sharma, M. Sharma, P. Srivastava, A. K. Singhvi, P.K. Mishra and H. J. Tobschall 2002. 'Middle Palaeolithic Human .Activity and Palaeoclimate at Kalpi in Yamuna Valley, Ganga Plain', *Man & Environment* XXVII No.2,p.1-15

[9] Sharma, G. R., et al., *Palaeoenvironments and prehistory in the Middle Son Valley, Madhya Pradesh, north-central India* (Archaeology of the Vindhyas and the Ganga Valley ;; Allahabad, India: Abinash Prakashan : 1983) also an appendix of all Upper Palaeolithic sites known in India stresses the massive density and the amound of survey work conducted in the region, it is Appendix I in S. Settar and Ravi Korisettar. (eds) *Indian Archaeology in Retrospect, Volume I: Prehistory - Archaeology of South Asia* (. New Delhi: Manohar Publishers, 2002). Also see discussion in P. C. Pant, *Prehistoric Uttar Pradesh: A Study of Old Stone Age*, (Delhi, Agam Kala Prakashan, 1982)

unique though is the fact that a series of tool-types has been recognised and understood within a larger tradition of tool-making and careful excavations have detailed statistically documented these patterns in the changing production of tool types and their respective sizes as well as in the utilization of raw materials. This documentation, which has sadly not been evident in many other sectors, has proved crucial to the generation of landscape-level data for even the Late Stone Age in the area as quite often distinct tool series have been recognised and localities classified to their suggested specific sub-period. At the same time however, it is important to note that these classification schemes whilst being demonstrably valid have also brought with them their own biases about cultural evolution and are thus not simple labels. Table 3-1 compares two of these to demonstrate this and this section proposes to follow the Allahabad University's scheme for the manner in which it is richly descriptive and formulated from observations made upon a series of excavated contexts.

Table 3-1 Comparative chart of two suggested schema for organising the Late Stone Age cultures of the Ganga-Vindhya region

<table>
<tr><th colspan="2">Allahabad Universities Scheme[10]</th><th>Vidula Jayaswal's scheme[11]</th></tr>
<tr><td colspan="2">Upper Palaeolithic</td><td>Pre-Mesolithic : Stage of Innovation</td></tr>
<tr><td colspan="2">Epi-Palaeolithic</td><td>Mesolithic : Formative stage</td></tr>
<tr><td rowspan="3">Mesolithic -</td><td>Non-geometric</td><td rowspan="3"></td></tr>
<tr><td>Geometric</td></tr>
<tr><td>Geometric with crude ceramics</td></tr>
<tr><td colspan="2">Proto-Neolithic</td><td></td></tr>
<tr><td colspan="2">Neolithic</td><td>Post-Mesolithic : Stage of Survivalism</td></tr>
<tr><td colspan="2">Chalcolithic</td><td></td></tr>
</table>

As the table above suggests, there has been a long tradition of using chipped stone technologies for various purposes over a long period of time, which can approximately be described as ranging from 28,000 BCE continuing through to around 800 BCE. This succession is impressive for a number of reasons, unlike many other parts of the country where a singular epoch has been recognized, the Vindhyan region is unique in having survey level recognition of a number of different periods within

[10] As most completely represented in Sharma, G. R., et al., *Palaeoenvironments and prehistory in the Middle Son Valley, Madhya Pradesh, north-central India*

[11] V. Jayaswal, 'Chrono-cultural Interpretation of Microlith using cultures of India' in V.D. Misra et al (eds) *Mesolithic India* (Pushpa Prakashan, Allahabad, 2002)

what has been usually termed the Mesolithic. The principal trend which has been used as the guide for periodisation of artefacts when encountered outside of excavated contexts is that of size and it is based upon a trend of dramatic and progressive reduction of artefact sizes at a number of key excavated sites. While this may be thin grounds for consistent recognition of surface materials it is upheld by the fact that much of the survey information comes from contiguous regions and is documented by the same investigators as the excavators.

The focus of these pioneering efforts has been on a detailed characterization of these assemblages and has involved the detailed and even large-scale excavations of a number of sites, almost all of which have provided a record of occupation through many of these periods. The nature of occupation has been hard to establish but generally is understood as being semi-permanent and has thus implicated these sites and these societies in a massive network of interconnected locations within a larger and densely populated landscape. The focus on the changing nature of the lithic assemblage has adduced two main indices, one of progressive miniaturization and the other of an increasing trend towards the utilization of certain forms or shades of cherts, perhaps indication a changing trend in resource selection areas which are still imperfectly known. While these remain our only indices into separating these cultures into meaningful categories and epochs it is the argument here that the focus on the lithic assemblages and the socio-evolutionary schemes and labels have led to an under-consideration of the emergent trends of socio-cultural complexity of the cultural assemblage beyond the tools.

Laying a larger context for the Vindhya and adjoining Ganga basin involves the consideration of the region in the early Holocene, a period during which it appears to have extremely dynamic, changing rapidly in many ways, ways in which made it significantly different from how it appears today. It is significant and important to consider these changes along two trajectories both of which tremendously impact the ecology of these early societies. The first and major body of evidence comes from a recent and energetic debate over the fluvial pasts of the Ganga basin. Detailed sedimentological studies, luminescence dates and remote sensing studies have established that the paleo-drainage networks were significantly different in the early and mid Holocene. While generalizations across an area such as that of even Uttar Pradesh which traverses zones as varied as piedmont fans to the absolute margin of the Ganga plain are difficult, a generalized model has been proposed. The major trunk rivers of the Yamuna and the Ganga have appeared to have taken their present initially southbound and then south-easterly trajectory reasonably early. In the case of the Ganga, the river appears to have been broadly active within a large zone which can be demarcated in the form a high and wide terrace. This is not readily discernable in all parts of its course and has

been subject to significant reworking not only by tributaries but also by the main river which continues to abandon meanders and appears to have run a more southerly course at some point in this period. It is broadly recognised that the early Holocene was a wet phase supporting a greater discharge through the trunk rivers, and a greater abundance of tributary networks which criss-crossed the area. This is broadly supported by evidence from small and large rivers coming from the mountainous regions which appear to have undergone an aggradational phase during this period. Around 6000 years ago there is an episode which changes these features, appearing to transform the interfluves surface into one punctuated by lakes and ponds, many born out of abandoned or drying up channels of major rivers and tributaries. Greater incision of channels and degradational phases seem to operate upon the landscape as a whole. Since this period there are apparently another two cycles of aridity and amelioration of climate as it is believed to increasingly approximate trends like the present as depth in time decreases. Debate has generally focussed upon the validity of reasoning based solely upon climatic change as a singular variant and the possible over reliance of hitherto thinly documented tectonic events as causes of network re-organisation.

The implications of these for our understanding of the early settlement is as follows, the early Holocene does appear to have been a wetter period and thus seems to have afforded a considerably different ecology. Pollen cores from a number of different segments of the Ganga basin (Pratapgarh, Lucknow – Sanai Tal, and Sant Kabir Nagar- Near Lahuradewa) all suggest that the landscape was dominated rather than by any virginal forest but by a vast open grassland. Specifically this is an ecology which would have presented a wide range of floral resources in terms of small bushes and wild grasses but also would provide the context for large ruminant and browser populations such as deer and other small and medium game. It is well known that the region supported a diverse and evocative mega-fauna during the terminal Pleistocene (including hippopotamids and diverse species of elephants) and it appears that the early Holocene may have presented large numbers of more mid-range fauna such as many varieties of deer which are not evidenced today. The early communities which settled here would have thus had a range of opportunities to build subsistence upon varied resources.

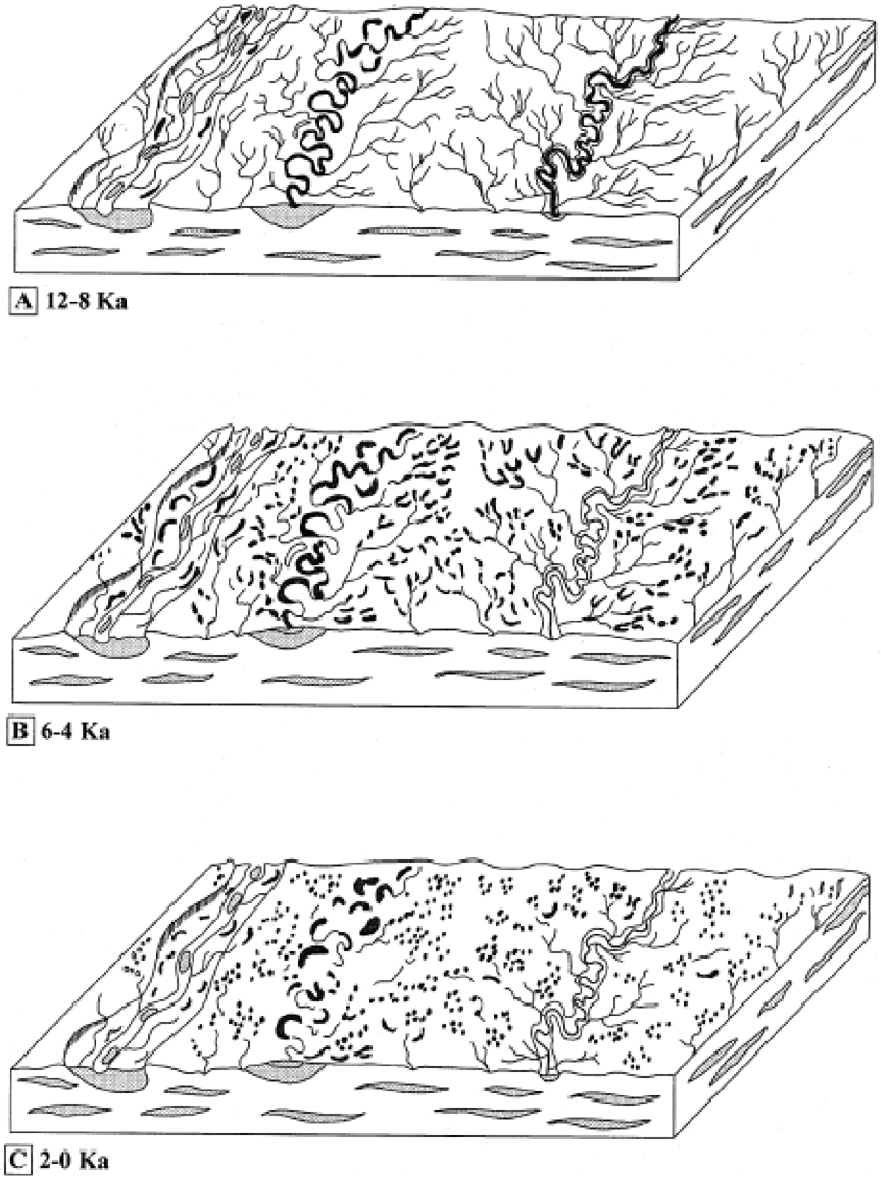


Figure 3-2 Geomorphic evolution of central Ganga Plain during Holocene emphasizing changes on the Upland Interfluve Surface (T_2). (A) Scenario during 12 to 8 ka. Large incised river, abandoned channel belt and incised minor river are shown. The interfluve region possessed a dense network of tributaries draining the region due to lowered base level and high rainfall. (B) Scenario during 6^4 ka. The activated channel belt is disrupted into large lakes, possibly due to tectonic activity. The ¢ ne tributaries changed to a series of lakes. (C) Scenario during 2^0 ka. Drying out and siltation of ponds on the interfluve region. Many larger lakes and ponds totally disappeared (Proposed by I.B. Singh in a series of publications, this current diagram and accompanying text have been cited from Srivastava et al (2003)).

A discussion of the third and most vital thematic that of the cultural evidence adduced from these cultures may begin from an unlikely source, one which has rarely been raised in the archaeological literature. These are sourced from the mounting evidence from pollen cores and micro-charcoal studies which have been conducted in recent years and form our deepest archive into the human pasts of the Ganga basin. Micro-charcoal in particular forms an evocative and unique record and is premised upon the detailed study of minute pieces of charcoal which are transported and sedimented into receptacles like led beds by processes of airborne and fluvial transport. The origin of consistent and quantitatively significant amounts of such deposits in discrete samples is said to be one the best records for human led fires. It is significant then that the evidence from Sanai Tal and

from Lahuradewa lake have produced exactly this sort of an evidence[12]. These are cases where we see no record of these earliest 'pyrotechnics' in an archaeological sense but we do we see the impact they left behind on the environment. Setting fire, in an open grassland sort of an environment, which at the time both areas seem to have been is a complex strategy possibly aimed at many ends. Firstly, it is a seasonal act, meant to clear the land and premised upon the knowledge that setting fire means that the wild grasses shall return with renewed vigour. This is ethnographically known to be part of practices of the shifting utilisation of land, and a signature in this sense of a complex sense of the landscape. Although the ethnographic practice relates to a different period and cultural context, it is one which speaks of a community using large areas of land, and doing so with practices that prepare them for their return. It is also a method, although somewhat ineffective, for the cornering and corralling of pray. Fires, even in grasslands and open contexts are known as a rudimentary hunting strategy. One which can control the directionality of the escape and more generally of the locations pray may be most likely to be found and then ambushed. Most significantly these records of the ancient practice of fire, as a tool, represent an early juncture in the transformation, manipulation and control of the environment by human communities – a vital step in the complex series of changes of attitudes and practices towards the natural world which were once all collapsed together under the label of the 'Neolithic'.

Beyond this, dramatic evidence has come from the unique and unparalleled battery of evidence marshalled from a range on interdisciplinary studies from the Lahuradewa area which have included phytolith analysis and the study of diatoms as well as micro-charcoals. Wild rices were apparently abundant from the very bottom of the known sequence and have been seen to have remained statistically significant until the 6th -7th millennia BCE when a morphologically different type of rice phytolith, probably related to transitional and eventually domesticated forms also appear in the sequence and subsequently continue to grow in proportion. The significance of these finds cannot be underscored enough. They highlight, more than anything else the complex nature of the settlement in the earliest phase, as according to our best knowledge yet, in the Ganga plains. It is important to highlight that this picture, whilst so significant is premised upon such few examples and

[12] Sharma S., Joachimski M., Sharma M., Tobschall H.J., Singh I.B., Sharma C., Chauhan M.S. (2006) Correlative Evidences of Monsoon Variability, Vegetation Change and Human Inhabitation in Sanai lake deposit: Ganga Plain, India. *Current Science* 90: 973-978., also Sharma S., Joachimski M., Sharma M., Tobschall H.J, Singh I.B., Sharma C., Chauhan M.S. and Morgenroth G. (2004) Lateglacial and Holocene environmental changes in Ganga Plain, Northern India. *Quaternary Science Reviews* 23:145-159. M.S Chauhan,A.K.Pokharia and I.B Singh 'Preliminary Results on the Palaeovegetation during Holocene form Lahuradewa Lake, District Sant Kabir Nagar,Uttar Pradesh' *Pragdhara* 15, 13-38

that these can only be expected to grow manifold once further information and such data is available for a range of sites in different areas of the Ganga plains.

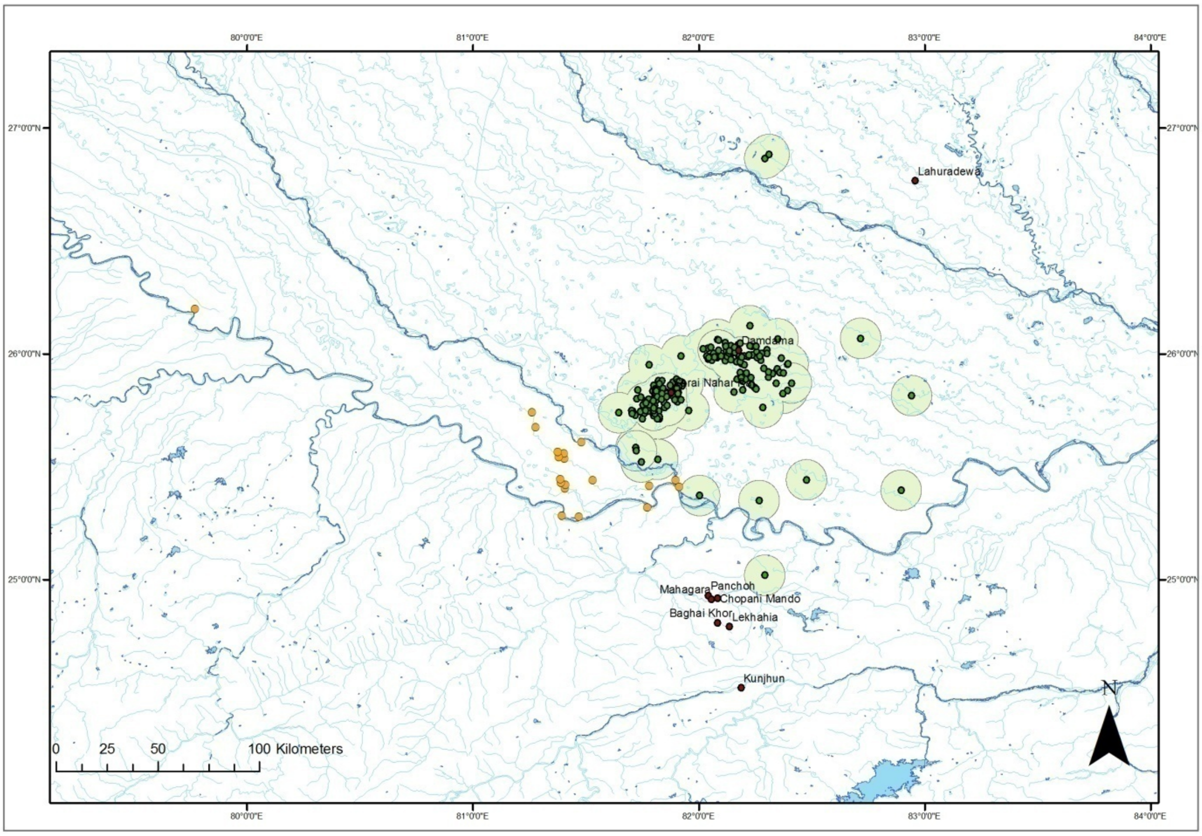


Figure 3-3 Map displaying major Mesolithic and Late Stone age culture sites in the Ganga-Vindhya region The light green buffer zone extends 10 km from each site indicating the sort of range which we can safely assume to have been under consistent patterns of exploitation and use by these communities. Note the site of Kalpi in the western half of the image and the dense clusters of sites known in the region of both Sarai Nahar Rai and Damdama. The group to the south of the Yamuna are the Vindhyan group. Erdosy had reported some Mesolithic sites in the mid 1980's but these had since not been integrated into any the existing datasets as he never published the details of these sites. These are marked in orange in the Allahabad region.

For the last 30 years there has been a major debate in the archaeology of the Ganga-Vindhya region, regarding the date of the 'Neolithic' and has centred upon massive scepticism regarding dates ranging to the early Holocene from a range of sites. The problem has been both simplified and complicated by the new trajectories to our information as represented above. The main problem remains that whilst the botanical and floral evidence for interaction, exploitation and manipulation is clear, the earliest cultural assemblages from Lahuradewa, Jhusi and Tokwa remain unpublished in full detail.[13] All of these sites share an initial period, reported as the first from each of these sites,

[13] Tewari, R., Srivastava, R. K., Singh, K. K., Saraswat, K. S., & Singh, I. B. (2003). Preliminary report of the excavation at Lahuradewa, District Sant KabirNagar, U.P. 2001–2002:Wider archaeological implications.

which spans a number of millennia and we do not at present adequately understand the site formation processes and the nature of the occupation and its changing patterns during this period. It appears that from the period of the 6th to 7th millennium through to period 3000 -2500 BCE these sites are defined by a single cultural epoch known primarily from a Cord Impressed crude red wares and Cord impressed crude black and red wares. The fact that such a large period of time has been treated by different excavators in completely different micro-regions, suggests to this commentator that this a cultural sequence which need no longer be treated with the anxiety and inherently problematic nature with which it was once received. A matter of archaeological procedures as practised in the area may also have contributed. This is the fact that traditionally, archaeological excavations have searched for the delineation of broad periods, rather than operate on a scheme of discrete levels and radiocarbon samples have traditionally been selected at stages in the sequences when major cultural change in terms of the artefactual record has been manifest.

It has been suggested that there are basic comparability's between them, especially on count of handmade red wares and rudimentary black and red wares which bear cord impressions. If this is so, at the date of an early Holocene, it suggests cultural complexities of a different order and allows us the opportunity of examining and comparing the evidence from the sites excavated in the 1970's and 1980's as well. Currently, however, such a project seems difficult and any speculations on published material alone unwarranted. The position taken here is that indeed these sites seem to display complex processes of site formation, another testimony to these processes is the fact that even at the major cemetery sites of Sarai Nahar Rai and Damdama, despite careful excavation, there is little understanding of how the 70 odd individuals relate to each other in time.[14] The two preliminary reports from Lahuradewa have gone a long way in both clarifying the early settlement and its ceramic components but have also suffered from similar reactions and circumspection on the grounds of the broad units it has defined in what is clearly, by its own chronology, a deposit constituted by complex processes over a long period of time. Subsequent further seasons of the site are known to have implemented a more sustained degree of stratigraphic recording and a fuller publication of the results of those excavations as well as those at Tokwa where a cluster of dates to the sixth millennium are reported from a discrete locus should serve to clarify the issue.

Pragdhara, *13,* 37–68. Misra, V. D., Pal, J. N., & Gupta, M. C. (2004). 'Significance of recent excavations at Tokwa in the Vindhyas and Jhusi in the Gangetic Plains'. *Journal of Interdisciplinary Studies in History and Archaeology*, *1*(1), 120–126.

[14] Robbins G., Misra V.D., Pal J.N., and Gupta M.C. (2004) *Mesolithic Damdama: Dental Histology and Age Estimation*. India: Allahabad University Press) Robbins provides a detailed examination of how the extensive samples still not a discrete series in the typical sense of an anthropogenic record due to a lack of chronological or stratigraphic lack of association.

The synthesis that we can seem to arrive at is the following; there are undoubted clusters of inhabitation, settlement and of the manipulation and extraction of environmental resources from the early Holocene. Specific and evocative examples come from the massive increase in *Trapa*, or *Singhada* pollen in the early Holocene levels at the Lahuradewa lake alongside the by now quite richly documented evidence of early rice 'exploitation' and the beginning of trajectory toward local domesticated forms. In many ways these new discoveries are rounding the picture off of what has long been posed as the sequence of Late Stone Age cultures. The picture they present now has deeply complicated the use of the label of the 'Neolithic' as the region seems to display a far smoother and long-term transition rather than any epochal, marked or revolutionary moment. We have now evidence from discrete sites spread over a large region which are negotiating and demonstrating the various shades of gray which lie in the passage from an earlier period to the more settled and definite period which we witness in subsequent times. It is for these reasons of continuity that it appears that these cultures are of course Early but also Formative, as even in the broad and complicated span of this early period we see clear evidence of traits, cultural, biological and in terms of their spatial setting that continue into and are definitive aspects of the later period as well. There is a need for caution in defining this Early Formative period, as the pegs on which it is anchored are few and at that still require much further work to enable a characterization which can afford to draw the sharp lines which are considered as definitive. What is proposed here is a spectrum of lifeways, as has been documented for the early and mid Holocene, as for the general area, there are considerable indexes and instances of continuity through to the latter period. For far too long anxieties about the 'far too early' date of the Neolithic, and the inability to see complex foragers and chipped stone using societies as significant precursors of later populations has inhibited the consideration of the early evidence from the Ganga-Vindhya belt, which now also comes from the Sarayupar. This is a period which sees the first exploitation and the continued use of what appear to be forms of increasingly domesticated 'rice'. Alongside this there is the documented exploitation of some local millets and other aquatic flora such as the *Trapa*. The sites from which the evidence for this period has come remain significant sites into the development from the fourth and third millennium on when we are also able to witness a wider range of sites.

Having formulated this position a brief review of the diverse range of cultural evidence from these groups is perhaps warranted. The case of Sarai Nahar Rai alludes to cultural traditions and complexity of an entirely different order as it presents us with a unique handmade and decorated Khaki colored ware. The decorations are intricate, complex and of two varieties; one of which resembles the designs of a tortoise's shell and may be a form of early art mimicking in a plastic form

an original type of water carrier. [15] Bone and antler ornaments have been known to have been produced as well and have a marked distribution in the burials.

Some of the most impressive evidence of the networks that these societies are implicated occurs in the food processing lithic assemblage. The sites in the Ganga plains are understandably far from sources of any stone and the massive trend towards miniaturisation and an extreme economy of lithic utilization as manifest in the development of special knapping techniques and new miniature tool types. What has not been as widely documented is the massive movement and presumably exchange in grinding stones. As large cobble to small boulder sized slabs of preferentially selected sandstone slabs these are items which signify an element of complexity about the settlements of this period. The complicated site-formation processes and the lack of complete datasets separated by levels means that we do not currently have control over when this process begins but it is clear that we can witness an appreciation and heightening of the exchange of such grinding stones, anvils and mullers in the period under review. Additionally, a microscopic study of use-wear patterns on the microliths suggested that the primary usage of most class of tools was in the processing of vegetal matter and not upon faunal materials as had been suspected. At the same time the faunal evidence points to a clear and marked preference towards venison, of which there were many species available and utilised. The range of faunal remains from sites in the Ganga plains also suggest a minor presence of megafauna, which by what we understand of species like the rhinoceros or hippopotamid were nearing their phases of extinctions. Other species indicate a diversification and a broad faunal spectrum and include a range of small birds, small rodents and a spectrum of tortoises, something which suggests that other aquatic resources such as fish may also been significant resources which were utilized but may not have survived. No real trends towards domestication have been identified at this stage however there were tentative identifications of cattle and possible sheep goat species at the Vindhyan sites such as Mahagara.

A major contribution has also been made to the study of these societies through the skeletal anthropology of the rich burial remains, something which has found new meaning with the advent of direct AMS dates which have clarified the chronology of many 'disturbed context' burials by providing clear and definitive dates.[16] The people of the 'Mesolithic' are noteworthy for having attained full to complete growth potential and are noted for robust frames, tall stature and muscular

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[15] Sharma, G. R., et al (1980), *Beginnings of agriculture : from hunting and food gathering to domestication of plants and animals : Epi-Palaeolithic to Neolithic : excavations at Chopani-Mando, Mahadaha, and Mahagara* (Studies in history, culture, and archaeology ;; Allahabad, India: Abinash Prakashan)

[16] J.R. Lukacs, 'Hunting and gathering strategies in prehistoric India : a biocultural perspective on trade and subsistence' in *Forager-Traders in South and Southeast Asia: Long-Term Histories*, Kathleen D. Morrison, Laura Lee Junker (eds) (Cambridge ,Cambridge University Press, 2002)p.41-60

limbs.[17] Incidentally the small bones of the hands of certain individuals have also been noted to have borne the indicators of stress markers resultant from long-term knapping activities as well as those born out of carrying heavy loads for long distances. Two further features are distinctive and noteworthy: the skeletal remains suggest a society which consumed a sort of diet which was readily processed from the immediate fauna and flora; caries- usually taken as a dental marker of the rise and marked consumption of processed and sweetened agriculture based products do not seem to have had any major distribution in the large skeletal record, a trend matched by the generally early date of the first group of sites as well as the lack of any such societies even during the second group under discussion here. Attempts at stable carbon isotope methods, suggest a distinction in the diet between those communities in the plains and those in the Vindhyas, a result, which if verified and elaborated upon could have significant result upon the manner in which we visualize these groups.[18]

The discussion of these societies here has tried to present some of the evidence form the societies to stress the following features: even at these seemingly continuous sites, there are apparent markers of discontinuity. This discontinuity is also marked by a significant change which has often previously been elided and refers to the growth and agglomeration of settlements and attendant complexity in the diversity of material culture. Broadly the picture we have in the Ganga and the Vindhyan region are of bands of small communities, which appear to be mobile and display significant trends towards sedentarization or semi-permanent settlements. They exhibit a range of foraging activities as well as a concerted effort to harness the meat of a number of deer species. The foraging activities have at least in one context been positively correlated with an intensive focus on wild rices which appear to undergo morphological change and are on the pathways to domestication in that area. While there is currently no quantitative grounds on which the following hypothesis can be based but the general nature of changes in settlement sizes and artefactual range seem to suggest a more widespread shift and regularization of early farming strategies over a wider area and in more cultural contexts.

A few further considerations are necessary about the manner in which we can place the few sites from which we have extensive evidence in the wider landscape of the Ganga-Vindhya and the Sarayupar region. In the early Holocene, climate is not as uniformly wet as had been earlier suggested.[19] The open grasslands seem to recover from the Younger Dryas episode only slowly and

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[17] J.R. Lukacs & J N. Pal, Skeletal Variation among Mesolithic People of the Ganga Plains: New Evidence of Habitual Activity and Adaptation to Climate, *Asian Perspectives*, 42(2), 2003, p.329-351

[18] J.R. Lukacs, 'Hunting and gathering strategies in prehistoric India : a biocultural perspective on trade and subsistence'p.41-60

[19] Jain, V. & Sinha, R. (2004) Fluvial dynamics of an anabranching river system in Himalayan foreland basin, Baghmati river, north Bihar plains, India, *Geomorphology*, 60, pp. 147-170 provides a useful review and

proceed towards a more complex ecology with occasional thickets and represented by the growth of sedges near lakes only by around the year 8000 BCE. During this period we also have proxy records of societies altering the ecology and controlling the environment in ways to suit their patterns of floral exploitation. It is important to underscore that we do not have much knowledge of these groups or of their cultural assemblages nor their patterns of faunal exploitation. While it is tempting to generalize and project a wide swath where similar activities may be occurring it is at present perhaps only most efficacious to highlight that this record cannot still overcome the major discontinuities of the more specifically archaeological record.

As the Figure 3-3 stresses though, there are indications that the complex succession of lithic-based designations of cultures, which may belong largely to the early Holocene spread across the middle Ganga plain. The districts of Allahabad, Kausambi, Pratapgarh, Jaunpur and Sultanpur are known to demonstrate such distributions and the occurrence of a dated conglomerate near Kalpi in Jalaun suggests a wider region may have been similarly implicated. Further, another sector of considerable distribution spans across the districts of Banda, Rewa, Sidhi and Satna and constitutes another zone which possibly had slightly different climatic and ecological experiences through this period, although it is important to note that the geomorphological specifics of these sites and their settings are deeply contested and debated.[20] The evidence at Kalpi is signatory of the fact that we have major taphonomic issues which shall continue to control the manner in which we can know the limits and expansion of this phase. An elaboration of this may be possible in the prospect of modelling slopes and palaeo-landform surfaces. It may be apposite here to bring up the oft-cited fact that all three of the famous cemetery and habitation sites of the Pratapgarh region: Sarai Nahar Rai, Damdama and Mahadaha were all found accidently and studied only after communication were made through proper authorities. It has been suggested that these are sites exposed and brought to our attention thanks to locally upwarped surfaces which are undergoing specific and preferential erosion in Pratapgarh.[21] The location of Pratapgarh and its position on the northern Ganga interfluves surface may yield to be a key with which we can further attempt to understand how

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summary discussion on how palaeo-climate not sufficiently well established or generalizable across time and space from many different proxy records.

[20] M.A.J. Williams, J.N. Pal, M. Jaiswal and A.K. Singhvi, 'River response to Quaternary climatic fluctuations: evidence from the Son and Belan valleys, north-central India' *Quaternary Science Reviews*, Volume 25, Issues 19-20, October 2006, Pages 2619-2631 The new more complex reading of the sedimentology and palaeolcimate is provided in Gibling, M. R., Sinha, R., Roy, N. G., S.K. Tandon, Jain, M. (2008). Quaternary fluvial and eolian deposits on the Belan River, India: paleoclimatic setting of Paleolithic to Neolithic archeological sites over the past 85,000 years. *Quaternary Science Reviews*, 27/3-4, 392-411

[21] Singh, I. B. (2005a). Quaternary Palaeoenvironments of the Ganga Plain and Anthropogenic activity. *Man and Environment*, *30*(1), 1–35. And Singh, I. B. (2005b). Landform development and palaeovegetation in Late Quaternary of the Ganga Plain: implications for anthropogenic activity. *Pragdhara (Journal of the Uttar Pradesh State Department of Archaeology)*, *15,* 5–31.

similar complexes and palaeosurfaces may have been buried in regions like Fatehpur and Kanpur, where the landscape currently constitutes the Ganga Yamuna doab but in the past may have witnessed far more major episodes of sedimentation and transformation owing to the greater sediment budget of the mighty trunk rivers. It needs to be stressed that the study of cultural pollen taxa and micro charcoal archives in other areas than these may remain our only entry point into these early periods.

III. Early and Mid Holocene settlement trajectories in other parts of North-India

A major purpose and motivation of preparing the atlas and premising this discussion upon spatial trends and the distribution of cultures was the belief that synchronous trends are visible in multiple regions in all periods and have been elided out of our historical discussion by the force of the meta-narrative. It is important and vital to account for these polycentric processes and their differences from an early period such as that of the early and mid Holocene if we are to avoid falling into the traps of making similar errors. Thus a brief consideration of the regions and areas in which similar early complexes are visible is necessary and is attempted below. The site of Paisra in Munghyr is probably one which is closest in both its chronology and cultural trajectory to those of the Ganga and Vindhya region. Set upon a locality of previous Acheulian occupation the evidence form the site presents detailed information from a region in which further such distribution into the Kaimur are known but have rarely been excavated. Paisra is also significant as it provides us with a radiocarbon date of the 6th millennium BCE. [22] Sporadic and repeated finds of LSA localities in the Sanjay valley areas of Jharkhand are known primarily from the excavations at Lotapahar are not as well understood.[23] Given the major distribution of older and later assemblages in the region it seems parsimonious to presume a sequence of cultures in this region as well in the time-period under consideration.

The region of central Madhya Pradesh is known to have its own cultural sequence as known from the excavations at Adamgarh and at Bhimbetka. These complexes are significant inasmuch as the evidence for large scale settlement here is profuse and attendant cultural remains include vast complexes of rock painting complexes which are almost invariably associated with habitation

[22] P.C. Pant and Vidula Jayaswal, *Paisra: The Stone Age Settlement of Bihar*, (Delhi, Agam Kala Prakashan, 1991)
[23] D. Bhengra, *Archaeology of the Chotanagpur Division (Jharkhand)*, (Delhi, Agam Kala Prakashan, 2007)

remains in clusters of rock shelters such as at Bhimbetka. The cultural chronology here too is long and old yet despite the considerable potential of the region it has not been able to provide many details beyond the known facts that a major occupation of the Raisen-Hoshangabad stretch commences in the 5th millennium BCE. Older complexes are suggested by the use of Ostrich egg shell beads in burial contexts and by the profuse Upper Palaeolithic occupation of the area as well. It is significant that these complexes are seen to continue into a period when 'Chalcolithic' communities become widespread in the valleys below these usually hilly complexes. A number of sites along the banks of the Narmada also constitute a complex which at present is ill understood in terms of its connections with the previous group and the specific, is any, adaptive strategies that its authors employed. Similarly it has been known for long that there are extensive complexes of rock shelters with paintings and microlithic tools of perhaps many series in the Mandsaur region but despite their early discovery and publication in the 1970's they have not been since revisited in an attempt to place and understand their relation to the landscape or to the communities which appear to have succeeded them. Zarine Cooper's work at the Chitrakut falls has done much to establish the variation in strategies which were often informing the logic behind the settlement and tool production regimes which are visible in the archaeological record. A combination of survey, excavation and ethnoarchaeological work led her to suggest a significant component of seasonal occupation focussing on the exploitation of the opportunities the area provided for fishing. The complex as a whole is dated to the mid to late Holocene and is thus generally a bit later than the cultures that have been hitherto considered.[24]

[24] Zarine Cooper, Prehistory of the Chitrakut Falls, (Ravish Publishers, Pune, 1997)

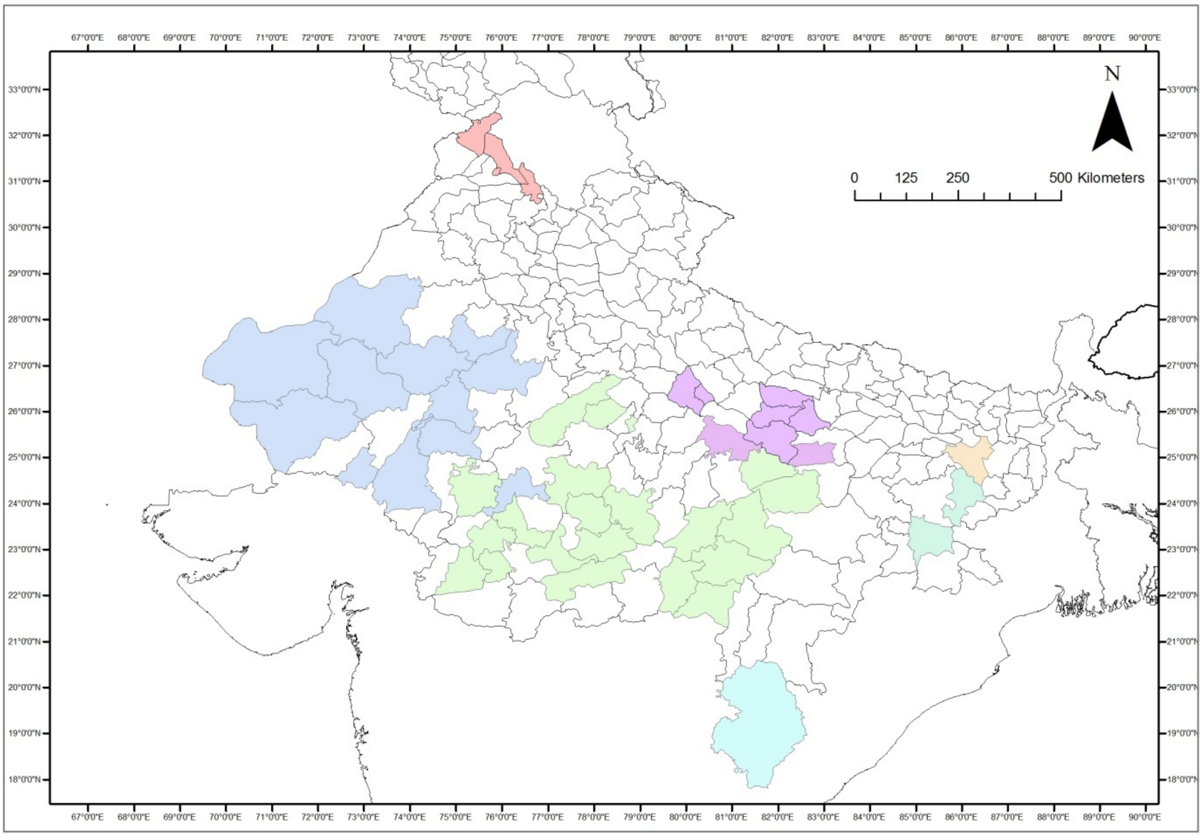


Figure 3-4 Map showing major known clusters of Mesolithic and Late Stone age cultures in North India

The evidence from Rajasthan has been important and formative in debates over the term Mesolithic and the connotations it has. The cultural sequence at Bagor is understood to be definitive of a cultural complex of people who were utilising a range of chipped stone tool technologies and constitute an independent centre for the origin of pottery making which proceeds form crude handmade gray ware bowls to a more diverse assemblage over the course of cultural assemblage, The finds of sturdy thick red wares and of copper implements, specially, distinctive copper artefacts from the upper periods has dominated a discussion of these cultures. The present discussion attempts to highlight the fact that from Bagor to Jaipur and Kota, this complex, if indeed it is one and the same occupies a large area which itself lends it a complexity and an avenue which has perhaps not been fully explored. The association of domesticated sheep and goat as well as of cattle with this complex have not been established above reasonable doubt but the heated debate has obfuscated the clear trajectory that the interaction with these species marks for the region and the ecology of these settlements. Similarly the occupation in the Berach basin and the Udaipur region is well established in terms of its widespread distribution across the valley. It is noteworthy that the region

around the Lunkaransar lake is also noted for having provided a micro-charcoal record of wide-spread use of fire in times contemporary to these cultures in the fifth millennium BCE.[25]

The effort of this discussion in recapitulating what are well known aspects of the prehistoric past of the North Indian region has been two fold, to stress the regional association and articulation of these cultures which has often gone un-noticed particularly because of the fact that only few sites are excavated and details are known only from them and there have been few efforts to map the larger presence in the area and relate the two categories of evidence. The compounded record of explorations and surveys show that large areas, are known to have been occupied at some point of time by the mid Holocene. Equally this discussion has attempted to highlight the fact that most of these records are still discontinuous despite their respective and discrete documentation of cultural sequences and that we need far more investigation before disparate reports of sites and presumed distributions of cultures can be wielded together into a coherent narrative about Holocene settlement and adaptation and control of diverse environmental settings by a patchwork of communities.

This discussion concludes with a two further vital themes. The first concerns a distribution whose significance has hardly ever been accorded it s due worth and potential significance for the history of North India, and this relates to the sequence of Early and Late stone age cultures in the Northern Punjab. The area has been known to have yielded an Acheulian as well as an extensive Soanian complex, the problematics of resolving which in a delimited time period and geomorphological context has for long shrouded their discussion in uncertainty. These sites have been found in what appear to have been deflationary surfaces and reworked terraces in general and this has tremendously impacted the manner in which their study has been possible.[26] Few discussions have taken stock of the fact there are more than 75 known localities and that the distribution is thus as significant as any other pocket form any other region of the country. Further a whole body of evidence exists which has been rarely considered and relates to a later period, seemingly one of the terminal Pleistocene and later. Known from upwards of ten contexts in the Pinjaur dun, its terraces and in erosional contexts in the fans, is an assemblage of flake and blade tools as well as what appear to celts, ring-stones and prepared mullers. It is important to note that no such site is

[25] Enzel, Y., Ely, L., Mishra, S., Ramesh, R., Amit, R., Lazar, B *et al.* (1999). High resolution Holocene environmental changes in the Thar Desert, northwestern India. *Science*, *284,* 125–127 and V.N. Misra, *Rajasthan: Prehistoric and Early Historic Foundations*, (New Delhi, Aryan Books International ,2007)

[26] Parth R. Chauhan 'Soanian lithic occurrences and raw material exploitation in the Siwalik Frontal Zone, northern India: a geoarchaeological perspective' *Journal of Human Evolution* 54 (2008) and Parth R. Chauhan 'Soanian cores and core-tools from Toka, Northern India: Towards a new typo-technological organization' *Journal of Anthropological Archaeology* 26 (2007) 412–441

excavated and the only dates we have, which are to, c 15,000 years ago, are for a terrace upon which a massive production site was found.[27] It appears that the date serves only as a *terminus post quem* and the cultural material could thus range to any period after that. Yet, the occurrence of similar finds in the foothills of the Himalayas in Himachal Pradesh suggests that there existed a larger complex which is imperfectly known owing to the tremendous geomorphological dynamism of the region.[28]

Having highlighted this last complex, in conclusion it is here attempted to draw attention to how Indian archaeology has traditionally theorized and understood these complexes. They have been understood as relatively primitive and simple cultures, with crude incipient forms of culture and have been imbued with the whole gamut of associations that primitivism brings with it. There has also been a general notion that appreciates the longevity and continuity of these traditions but without a major concern for understanding the dimensions of cultural change within these systems. The only major paradigm of structuring the understanding of change and the rise of more complex behaviour in these cultures had for long been that of an interaction system with more complex agricultural societies in the vicinity.[29] The condition of being implicated in such a system of exchange is said to have been attendant upon major changes and complexity. Recent reformulations have powerfully reformulated much of this and have exposed the plainly evolutionist moorings of many of our assumptions about such societies. It has been the attempt of this paper to highlight that these cultures have major indices of cultural change and that they are agents in the making and shaping the world that they inhabit. Fortunately the best documentation ranges from area of central focus, i.e., that of the Ganga-Vindhyan region and has spoken eloquently about such registers of culture and cultural change. We still weakly understand the dimensions in which such communities continued down to the subsequent stage of more settled societies in most of these regions, but the central argument here is that there are indications even in our discontinuous record of such processes and they need to be appreciated.

IV. Early communities and the long Fourth millennium

[27] AS SONI, VS SONI and D. S. DHILLON, 'Large assemblages of flakes and cores found on dated young terraces of River Satluj and its tributaries', *CURRENT SCIENCE*, VOL. 94, NO. 5, 10 MARCH 2008, pp. 577-580

[28] Madhu Bala, *The archaeology of Punjab*, (New Delhi: Agam Kala,1992)

[29] Gregory L. Possehl' Harappans and hunters: economic interaction and specialization in prehistoric India 'in in *Forager-Traders in South and Southeast Asia: Long-Term Histories*, Kathleen D. Morrison, Laura Lee Junker (eds) (Cambridge ,Cambridge University Press, 2002)p.62-76 J.R. Lukacs, 'Hunting and gathering strategies in prehistoric India : a biocultural perspective on trade and subsistence' in *Forager-Traders in South and Southeast Asia: Long-Term Histories*, Kathleen D. Morrison, Laura Lee Junker (eds) (Cambridge ,Cambridge University Press, 2002)p.41-60

The early chapters of this dissertation afforded a full length discussion and deconstruction of the manner in which the meta-narrative of Ancient Indian history has been constructed. It is attempted here to characterize two major themes and methods in the consideration and praxis of the writing of the archaeological history of the region. The first relates to the final question raised in the previous section: that of discontinuities and cultural traditions in the consideration of a connected history. The episodic and discrete nature of much of our information has been recognized and often dealt with extremely effectively by those who have attempted to deal with synthesizing the evidence. It is arguable, however, that the tropes of primitivism and archaism have been equally a consideration in this evaluation of the 'worth' or 'historical contribution' to posterity of any given cultural group. The complexity of the evidence on multiple fronts of the Ganga-Vindhya late stone age societies is one such example – despite such rich evidence on their continuity in time, their expanse over a wide area and their diverse cultural and economic practices for the most part they are considered to be transitory and their connections to the 'Neolithic' that follows dim if not absent.

It is argued here that the main reason for the widespread currency of such notions is that there is another side to this coin, and on that side Harappan legends are inscribed boldly. There is a syndrome in the consideration of material evidence which has canonized and lionised anything Harappan again to the level of a 'civilization', of a greater order of existence, and of a culture which was superior to all those around, before and since, until the early historic. This discourse can be seen as coming out of the early farming paradigms of 'great bronze age civilizations' and equally out of the ideas that have structured our consideration of the decline and fall of this cultural complex. The idea that the Harappan Civilization with a capital 'H' was unitary and uniform in its vast cultural expanse has been occasionally argued against, but it dies hard. The ideas on its origins and its decline have been vastly reformulated, and the idea of the Indus and Baluchistan regional traditions have proved to be some of the most versatile and powerful organisations of archaeological data. Yet outside of the Indus regional tradition, and specifically to the east of it we still speak in terms of 'The aftermath of the Indus world' and subsequent to that of the 'Neolithic-Chalcolithic cultures outside the Harappan orbit'. This dissertation takes the position that there is mounting evidence to believe that such a paradigm is flawed, premised upon the undue privileging of cultural categories above one another and serves only to pigeon-hole societies into assigned evolutionary stages rather than come to terms with their material culture and the networks they are implicated in.

There are many complex issues which are rolled into one here, and while the unpackaging of the Harappan monolith is an important step in how we can consider processes in the western part of Northern India. It is stressed at the outset here that over the course of the fourth millennium BCE we

see a number of important and manifest transformations in the material record from almost all regions, and it is important to decentre a consideration of these and stress the discontinuities as well as the fragmentary evidence which does come through from many regions where it is traditionally unconsidered. The main regions where we can see and trace conspicuous changes are in what are conventionally recognised as Early Harappan domains, which have an ill-understood distribution in the Haryana- Punjab region. Significant transformations seem to occur over this period in all known cultural groups in Rajasthan. Developments in Madhya Pradesh and Bihar are sadly not as well understood. Further, the complexity of the evidence from the Ganga-Vindhya region is such that it shall be dealt with in the subsequent section. The first area about which discussions shall be raised concerns the areas of Punjab, Haryana and Rajasthan and their implication within the Harappan world of the later period and focuses upon new and challenging evidence from the last decade.

A case in point is the consideration of the Ahar culture of south-eastern Rajasthan and the Udaipur region. When first excavated in the 1960's only a few radiocarbon dates were managed and they suggested a chronology that began c. the year 2000 BCE a time when the Harappan civilization was already considered on the wane, thus placing it legitimately in a world where the Indus Valley civilization had come to an end and a host of different cultures, perhaps associated with waves of migrating Indo-Aryans could be suggested. [30] What is relevant for the present discussion is the following: early dates from the site of Kayatha, from levels associated with this culture, already suggested a date which was prior to that suggested at Ahar.[31] However the weight of considered opinion and established understandings of the cultural processes of the region did not merit a rethinking of this chronology. The considerable extensions of this culture into various discrete zones of Madhya Pradesh is something that has till today also hardly been considered. Over the last ten years our information about the culture has been transformed by a series of major excavations, most notably those at Balathal and Gilund. V.N. Misra's program of radiocarbon dating at Balathal is unique in the context of Indian archaeology and allows space for a discussion of the same. Radiocarbon dates in Indian archaeology have been notorious for having required much manipulation, explanation and explaining away on the part of excavators and commentators. While much of this is an inevitable part of the exercise the problem has been compounded by the fact that often only a few samples were chosen, where available or randomly considered and the effect of

[30] Dates for the Ahar culture from Ahar

Oldest	2145 +- 98 BCE
Youngest	1275+-108
range	2660-1280 BCE

[31] V.S. Wakankar also raised the point that the distribution of the concentration of sites in the Udaipur region may not imply that the origins of the culture were located therein on account of the earlier dates from his excavations at Kayatha which placed the culture at a period contemporary to Mature harappan times.

error upon these has introduced major uncertainties into what can be deduced from a tentative date of one level of a multi-phase period.

Misra’s project was to put forth a solid foundation for the date of the culture and for this purpose he chose 45 samples, as widely distributed across the cultural sequence and across different areas of the excavated site as possible. These were sent in batches of half to two different laboratories and the results are significant. The origins of culture at Balathal are now securely dated to c. is 3700-3620 BCE from a whole host of dates and it is suggested that settlement for the Chalcolithic phase continues till 2200-1830 BCE.[32] The scale of this revision for what was considered to be a securely dated and well understood cultural context is surprising and yet, equally a trend which had been prefigured in fragmentary evidence prior to this massive dating exercise. The insistence on a largely post-Harappan context for the culture had repeatedly been questioned on the basis of the finds of the distinctive Ahar White painted Black and Red ware bowl types in Harappan layers at sites in Gujarat and the corresponding evidence of certain wares including the reserved slipped ware in Ahar contexts. The revision is significant for it forces us to consider the argued evidence for sociopolitical complexity in the complex at the site of Gilund and forces us to re-examine the questions of how we model the processes of the emergence of early complex societies in that region. Chronology aside each of the major recent studies of the ceramic assemblages of Mewar fro the period have stressed the complexity of defining any one group of definitive ceramics or wares. They have stressed instead that there is a number of such groups, which suggest not only the complex dynamics of this independent ceramic tradition but also stress the fact that there are extensive exchange networks with various different regions which are formative to the region.[33]

[32] V. N. Misra 'Radiocarbon Chronology of Balathal, District Udaipur, Rajasthan' *Man and Environment*, Vol. XXX (30) for 2005, p.54-60

[33] V. Shinde et al ‘The Ceramic assemblage in Protohistoric Mewar (Rajasthan) with special reference to gilund and Balathal’, *Puratattva*, Number 32, 2001-2002,p. 5-24

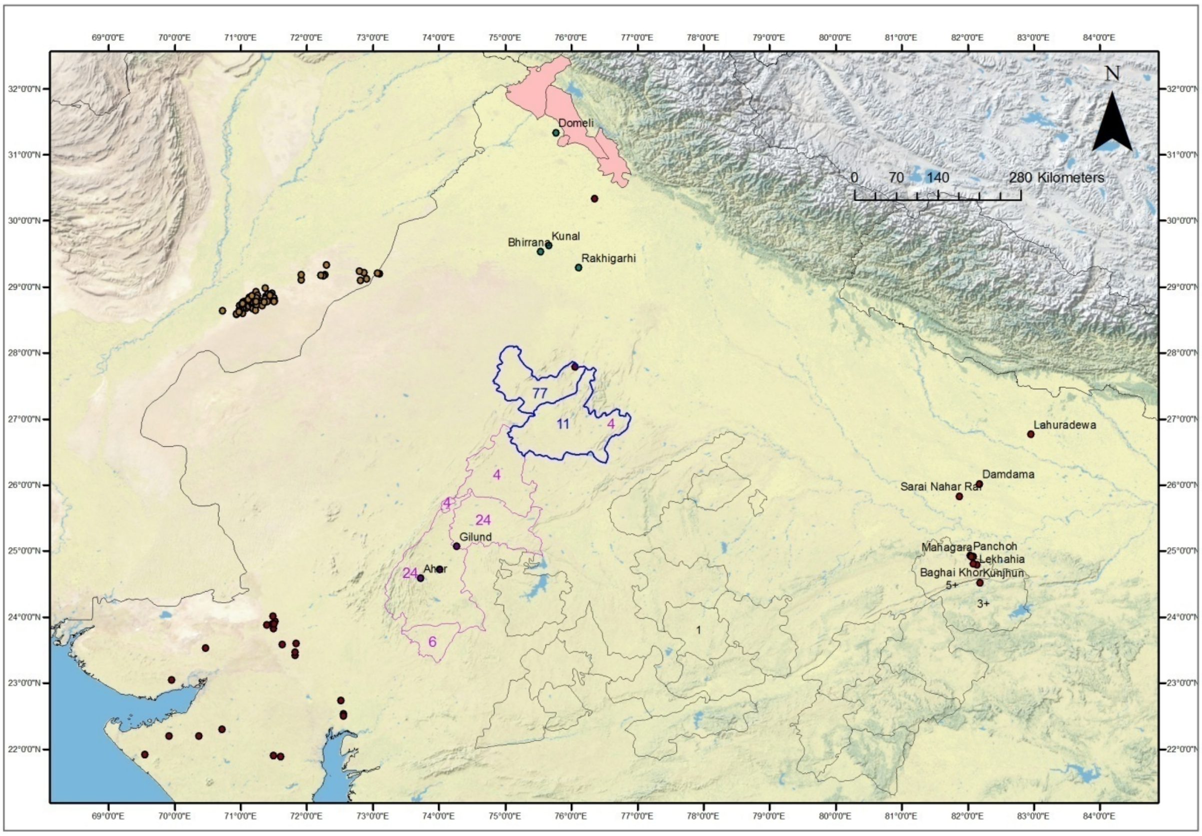


Figure 3-5 Map depicting known cultural distributions of the fourth millennium BCE. The purple polygons and numbers refer to sites of the Ahar Banas culture, those in blue refer to those of the Ganeshwara-Jodhpura cultural complex. The sites in Gujarat mark the microlithic complex and the rose coloured polygons to the North of the labelled prominent early and pre Harappan sites mark the known distributions of LSA cultures in the North Punjab. The black polygons in the centre provide a representation of zones within Madhya Pradesh where prominent clusters of Mesolithic activity are known. Further East are marked the major type sites of what by the fourth millennium BCE can be termed the Settled Farming communities.

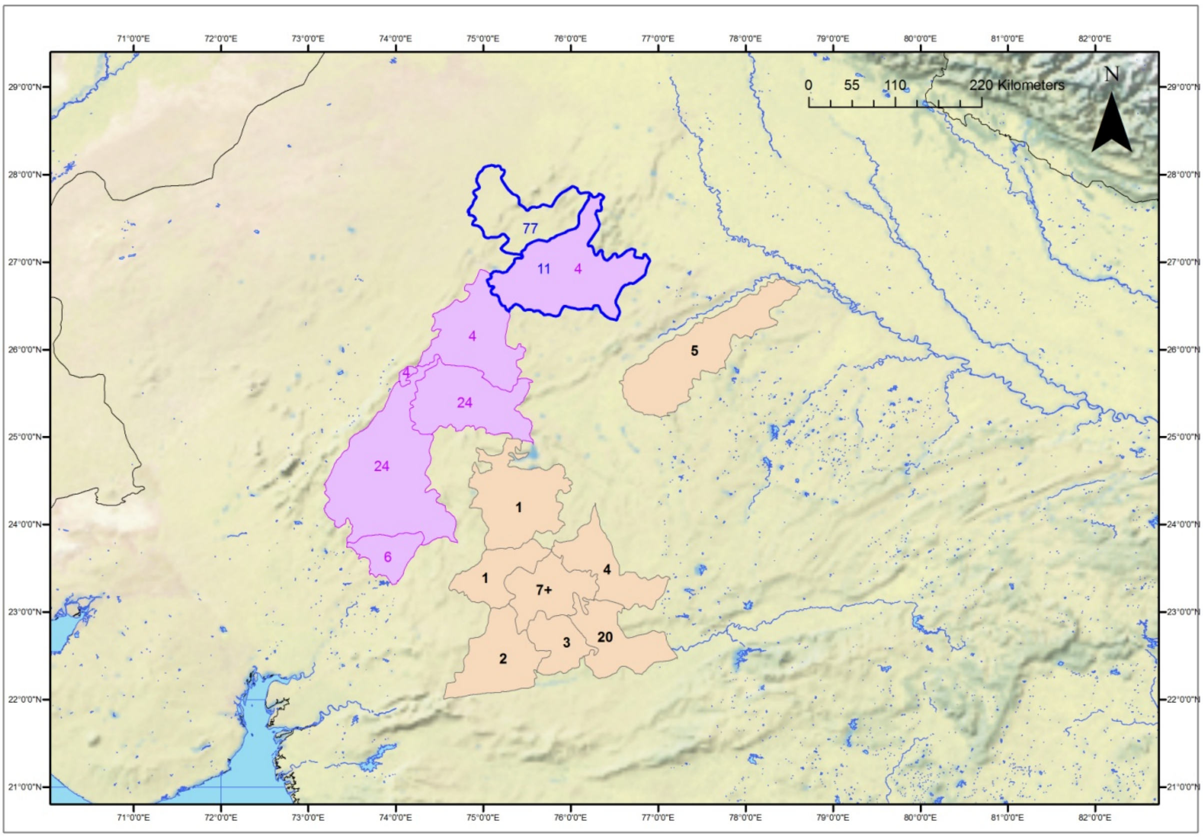


Figure 3-6 A map focussing on the cultural distributions on both banks of the Chambal and Kali Sindh complexes. The Pink polygons represent the known extent of the Ahar culture and the Blue polygons the Ganeshwara-Jodhpura culture. The beige polygons represent the known limits of the Kayatha complex and the regions on the banks of the Narmada are known to have presented evidence of Ahar type ceramics, suggesting that there are extensions of that cultural group which we presently do not understand.

As a factor in breaking down these barriers and pointing out the complexities of other such possible misconceptions, it is worthwhile to stop and consider the late fourth millennium BCE and take stock of the extant knowledge from northern South Asia, including the Indus system. Rapid developments in the Indus basin over a similar chronology to that of the first few phases of Balathal seems to have given rise to the Hakra cultural group, a community which has a discrete distribution in the ghaggar basin. In addition, the presence of the Hakra ware at the lowest levels of sites excavated in Haryana and Punjab over the last decade have been a singular demonstration of just how thin our knowledge of the early and pre-Harappan phases in the Greater Punjab region is. It is also noteworthy that while we understand little of the pre-Harappan and earliest phases of this zone there are two significant indicators that there are preceding cultures of a fair distribution which need reckoning with and factoring into our understandings of cultural growth and evolution. It is a sign of the lack of interest in inquiries which do not pose the Harappan question that at least one of these cultural complexes has been reported a long time back and have since not seen any reinvestigation at all. A plain and thick gray ware has been found alongside other seemingly non-local types such as the

Hakra at all of these levels and may suggest a distinctive local culture, the details of which are at present not fully known.

Further North in Kapurthala district is the site of Domeli, which has produced more concrete evidence of connections and complexes which are still hardly known or properly understood. Surface exploration at the site is known to have revealed a distinctive 'pre-Harappan' ware the like of which has not been reported from elsewhere alongside a dull handmade Red Ware and a large collection of celt and celt fragments. As shall be argued further and in depth for the Ganga-Vindhya region the emergence of a celt trade is a significant marker of settled and developed communities rather than of any archaic 'Neolithic' and it may be seen as representing similar complexities in this region.[34] Additionally, it must be stressed that many areas of the Northern Punjab lie in a geologically active and geomorphologically dynamic region and there is a significant possibility that sites of even the mid Holocene or a bit later may be buried under the alluvial cover of once vigorous and now absent forces in the landscape such as the Ghaggar.[35]

There are important reasons why this section has been framed in terms of the 'long fourth millennium'. It is clear and apparent that of the many cycles of cultural development, elaboration and regionalization that have been studied and considered for the Indus region the period from circa 3800 through 2600 marks a series of connected transformations and one which cannot be separated but by artificial division. It is this that this section now turns towards a consideration of the further developments in the western region till the time when we see what is recognized and hypothesized as a century long period between 2600 and 2500 BCE which is argued to represent the transition to and the emergence of the Mature Harappan culture, whose widespread extent is much better understood than the components and antecedents over which it spread in the Haryana, Punjab and Northern Rajasthan zones.

The importance of trying to understand these ill known beginnings is borne out by a consideration at the known distributions of Early Harappan cultures in the same zones. Over this half millennium time scale, which is usually designated as the period from 3200-2600 BCE, we see the emergence and settlement of large scale societies, connected with each other and undergoing considerable processes of social transformations. At present we must acknowledge that while the Amri-Nal and

[34] Y.D. Sharma et al 'A New Pre-Harappan site in Punjab with a likely Neolithic stratum' in R.K. Sharma (ed) *Indian Archaeology – New Perspectives* (1982) p.184-192

[35] An indicator of such taphanomic issues is provided by the case of Chandigarh where apart from a single site which was mounded, more than six other sites were discovered only when unearthed during the course of construction and were found buried under a metre to a metre and a half of alluvial sediment.

the Kot Diji which have well understood preceding phases of two tiers: from the Kili Gul Mohammad and Burj Basket phases through to the Hakra ware phase, we have no similar understanding for the Sothi-Siswal complex. In other words the Sothi-Siswal complex is problematic for the very fact that it seems to emerge in a manner that betrays no knowledge of its antecedents. It emerges during this period as a massive regional complex of at least a 165 sites of which Rakhigarhi at an estimated 40 Hectares is the largest. It represents to the best of our current knowledge the largest early complex society to have inhabited this sector of the North Indian plains and poses a major problem with regard to its origin and development over the first half of the third millennium and beyond. In almost every way, in the area under consideration the Sothi-siswal culture is undoubtedly one which emerges in the most widespread manner and with the clearest evidence of regional culture and a society structured and oriented in the manner of a significant settlement hierarchy and a marked regional distribution of sites. It is an extreme marker of the apathy towards radiocarbon and absolute chronologies that despite the excavation of more than 10 sites of this cultural group, the existing dates come only from Kalibangan and range as widely as 5560 BCE to 90 CE for this period alone. On their basis a chronology had been constructed for the period which ranges from 2600-2200 BCE but it appears that on comparative grounds with other better dated contexts which map the transformation to the mature Harappan in time that this too is problematic and flawed.[36] There have also been significant suggestions which suggest that the craft traditions as best represented by the Sothi-Siswal set of ceramic 'fabrics' continue and extend throughout the Mature Harappan and in a 'degenerate' manner continue even later. Issues of chronology aside their exists extensive evidence of a society of complex material culture marked by fine and elaborate ceramic and conspicuous craft traditions as well.

An example which better represents the massive confusion and imprecision which currently informs the manner in which we understand even the culture-historical pattern of the northern part of the subcontinent is found in the Ganeshwar-Jodhpura complex. The complex which had been discovered in the 1970's seems to emerge in the course of the fourth millennium out of culture which previously had largely been known only from Microlithic occupations into one of the most industrial and metallurgically oriented communities known in South Asian prehistory. The amount of imprecision and confusion about these communities is especially unfortunate as after the initial discoveries of 'Copper hoards' extensive explorations were conducted which located upwards of 70 odd sites. Sadly these reports and those of excavations at both of the sites which lend them name to the complex have remained largely unpublished. Uzma Rizvi's recent review and synthesis has for

[36] For a forceful discussion of the implication and the confusion about the dates of the Sothi-Siswal complex from Kalibangan see Possehl, *Indus Age: The Beginnings*, Vol 1, page 694

the first time provided a coherent picture of this culture and has provided us with a considered evaluation of the culture and its connections.[37] The Ganeshwara Jodhpura complex as of today I known from around a 100 sites concentrated mostly in Districts Sikar and Jhunjhunu but is known to have distributions to the South and East of this defined core as well. The complex was initially reported to have been defined by an Ochre Colored Pottery which has led to considerable confusion over its cultural affiliations, including many suggestions that the culture is the same or the predecessor of the copper hoard culture of the Ganga plains. Rizvi does much to clarify this and on the basis of ceramics from her survey as well as from the study of curated materials Rizvi defines a set of distinctive coarse and medium wares for the cultures, some of which are marked by decorative elements in black bands and simple designs as well some forms of incised decorations. Further Rizvi documents the presence of some fine wares which also include the Reserved slip ware, thus documenting another aspect of the implication of the cultural complex in the midst of the changing and evolving western half of the subcontinent in the third millennium BCE.

Arguing against a characterization of the complex as a group of hunter-gatherers who acquired efficiency in the production of copper Rizvi argues that the Ganeshwar- Jodhpura complex emerges as a distinct cultural entity around the year 2900 BCE. From this time they come to be defined by a set of ceramics and subsistence strategies which involve the utilization of copper for hunting and fishing (evidenced in arrowheads and fish hooks) as well as forms of farming which are currently ill-understood. Rizvi argues that the major intensification in copper production seems to be largely synchronous with the mature Harappan transition and bespeaks of a major economic integration with the larger region which may have included trade with the Kayatha and even possibly with the Ahar-Banas cultures as well.

Rizvi's conclusions are telling and they speak voluminously for the manner in which the archaeology of these communities and worlds need revisiting and reconsideration. Rizvi forcefully argues for the use of the concept of a heterarchical resolution of the manner in which we understand these cultural complexes and the trajectory of cultural history in this period. Rizvi argues that the Ganeshwar- Jodhpura complex represents a set of community-based copper production complexes which thrived in their specialization in their ability to produce specialized products vis-à-vis the recourse of Copper, which was abundant in the area of the concentration of their settlements.

[37] Uzma Rizvi 'Configuring the Space In-Between: Redefining the Ganeshwar Jodhpura Cultural Complex, North Eastern Rajasthan, India' Unpublished Ph.D Thesis, 2007, University of Pennsylvania. The summary above of the Ganeshwara Jodhpura Cultural Complex draws entirely upon her work and is indebted deeply to the clarifications it makes and the positions it has taken.

Rizvi's survey documents the variable manner in which this may have affected the settlement patterns within the known distribution of Ganeshwara-Jodhpura complexes, as she discerns 4 broad settlement complexes within the region each different in its configuration of mining / smelting and habitational sites of different sizes. Rizvi visualizes the interaction of these communities with larger centers in the greater region as one which is fluid and open to re-assessment and this is a valuable insight which flows from the positing of a heterarchical world, where cultures are not linked in unchanging or uncontested power relations.

Another component to this need to revisit many of the assumptions that have been made about the trajectory of cultural evolution over the third millennium has involved the deconstruction of the Harappan monolith even during the phase of its peak, i.e. in the mature Harappan period. A major statement of this has been Gregory Possehl's argument of their having been several domains, representing different cultural and possibly even political spheres within the larger Harappan world which was once thought to have been so uniform as to have comprised a single state. This retreat from the idea of uniformity is important as it allows one the space to study and recognize which elements of material culture are seen to be linked up with larger regional aspects of style, ideology and consumption and others which may remain more attuned to local levels of affiliation. The implications of this which need to be highlighted is the fact that in the middle of the third millennium BCE there appears to have been tremendous complexity and regional interaction between a number of groups each which was producing a distinctive material culture and by the nature of these interactions being implicated in larger discourses and developments which related to identity and ideology. This fluidity and multiplicity is what has been greatly masked by both the meta-narrative of ancient Indian history and the grand narrative of archaeological cultural history which has not as often seen the other elements of this cultural mosaic as elements which bear the same standard of cultural evolution.

This discussion here has related to the manner in which cultures prior to the mature Harappan transformation may have come into being in the areas of the subcontinent outside the Ganga Basin. Now the discussion shall turn to evaluate the evidence for the broad period in that region.

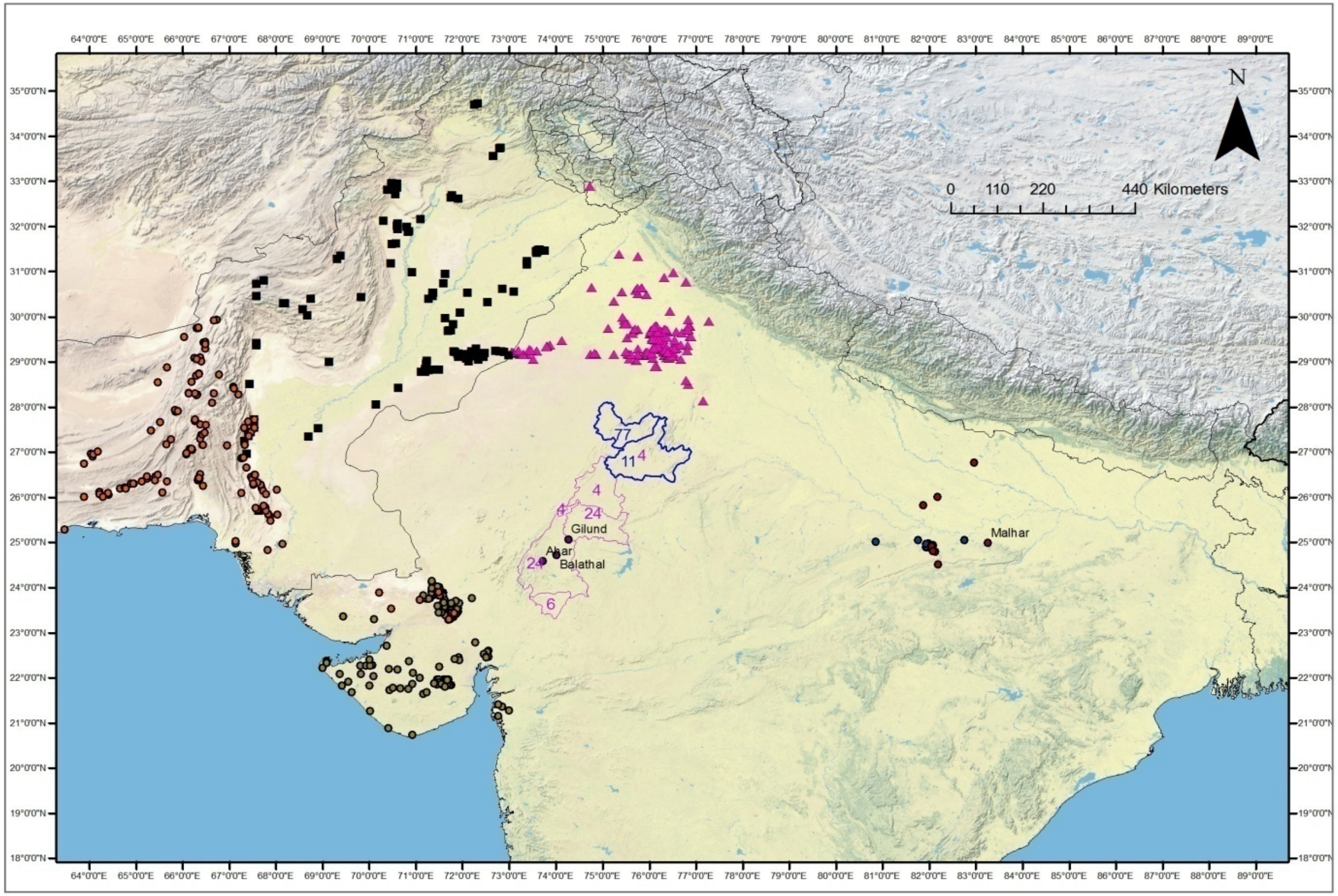


Figure 3-7 The scenario during the early to mid third millennium BCE. The red dots indicate the known distributions of Amri Nal ceramics, including their known occurrence in the North Gujarat Corridor in burial contexts in the midst of the Anarta Chalcolithic complex. The Black squares represent known Kot Dijian distributions and the pink triangles represent the Sothi-Siswal complex, best known from Kalibangan. We have currently no indicators of how and when settlements expanded in the Ahar-Banas complex or in the GJCC but this phase of the early to mid third millennium BCE can perhaps be suggested as one which also saw growth in these cultures.

V. Crosswinds and Complexities: Cultural change and Multiple Contacts in the Ganga Vindhya region over the 5th and 4th millennia BCE

In the quest to organise the available data from the mid Holocene from the Ganga- Vindhya region this discussion now proceeds to comment upon a second set of communities: all mostly known from the same sites but with a significant clustering of radiocarbon dates between the years 4000 through 2500 BCE. It is significant and worthy of comment that most of these sites are the same, and additionally we can trace the growth of such a complex of sites, including those which extend to a date further till circa 1500 BCE in the Vindhyan belt and its small river valleys. The sharpest contrast with the earlier period is that generally these sites have provided dates to a period of about the 5th to 4th millennia which has been found as more acceptable by consensus for the period in which they have clear evidence of settled communities. In contrast the view for the sites previously discussed from the region generally has been that they may have been seasonal and repeatedly re-occupied, but as we have noted the more continuous evidence from biological and ecological records suggest a broad continuity and a manner of settlement that was permanent in some form at least.

For this second period we have a host of evidence from excavated sites on the cultural materials, the most important and largest dataset of which comes from large scale excavations by the Allahabad University. While a complete synthetic review is not the present agenda the discussion here shall attempt to focus attention on key aspects which have often been overlooked or those which are unique to this cultural complex and region. At the same time this organisation into what can perhaps only be termed a long 4th millennium BCE is somewhat arbitrary and premised upon traits which both begin earlier and continue earlier.

It is the argument here that it is in this period, that we see an emergent complexity of community and identity which appears with considerable clarity on many grounds upon the stage of these previously foraging, seemingly peripatetic societies. It is from the 5th millennium that we get some of the earliest and most clear evidences of cemeteries and their repeated use from hilltop cave sites in the Vindhyan region. Also it is clear that cemetery sites in the Ganga plains, which it must be noted, are definitively older, but they also continued to serve as anchors and as sites repeatedly visited and of perhaps of some cultural significance in these landscapes and were also in occupation and use prior to this period. Yet it is in the later levels of these sites, those for which dates also appear from this period, that we appear to have clear evidence of settled communities, where huts are known to

cluster together and suggestions of family like units with a quern for each house and hearths in between every few have been observed. It is noteworthy also that these late levels also begin to approximate a microlithic technology which subsequently or at the same time becomes far more widespread and visible in concentrations and locations in otherwise off-site contexts in the Vindhyan region. Here too, we find evidence of rock art, often superimposed many times and suggesting a whole range of occupations and associations and a significant register of symbolic expression. In the range of ceramic associations we seem to be on more concrete ground with a known assortment of wares which prominently includes a Cord impressed ware and a dull Red Ware along with what appears to be a rudimentary black and red ware. The preparation of raw materials in the microlith production sequence also finds unparalleled documentation from Kunjhun II where nodules were sourced from river gravels, transported and heat-treated before they were knapped.[38]

By the first half of the third millennium BCE it seems parsimonious to presume a form of early, or as has been suggested perhaps even 'developed'[39] farming alongside complex foraging and hunting strategies as having been the basis of subsistence in the middle Ganga region, the Sarayupar and the Vindhyan region. There are probably significant differences in the trajectories of each, and perhaps even in the practise followed but none of these can at present be elaborated upon. It has been suggested that a major component of these processes which see a change in the distribution, absolute number and settlement pattern of these communities may also be linked to the processes by which animal domestication and the introduction of livestock into their world brings about changes.[40] Cattle and sheep and goat bones do appear, particularly in mid Holocene contexts and later but their status as domesticated should be treated with caution. This has been a matter of considerable debate and even today there seems to be no final position on the matter.

The most significant aspect of the second group and phase is that it seems to lay the ground for the fuller emergence of settled communities, village settlements in discrete zones and a material culture with more complex craft technologies in the course of the third millennium BCE. Inasmuch they constitute the earliest known major settlement of the Ganga plain which we can document. They are agents in its making and through their cultural strategies and decisions, transform the flora and

[38] Clark, J. D., & Khanna, G. S. (1989). The site of Kuhjhun II, middle sone valley and its relevance. In J. M. Kenoyer (Ed.), *Old problems and new perspectives in the archaeology of South Asia* (pp. 29–58). Madison: University of Wisconsin.

[39] Rakesh Tewari, R.K Srivastava, K.K Singh, K.S Saraswat, I.B Singh, M.S Chauhan, A.K.Pokharia, A.Saxena, V.Prasad, M.Sharma, 'Second Preliminary Report of the excavations at Lahuradewa District Sant Kabir Naga, U.P :2002-2003-2004 & 2005-06' *Pragdhara* 15, 35-68

[40] Dorian Q. Fuller 'Agricultural Origins and Frontiers in South Asia: A Working Synthesis' *Journal of World Prehistory* (2006) 20:p 44

undoubtedly make some impact upon the fauna of the regions they settle. The craft traditions they develop seem incipient and rudimentary but are of great significance as it is clear that the later more evolved ceramic types emerge out of these practices and traditions. The most important of these lies in the emergence of the technologies of providing slipped and burnished / polished surface treatments to the pottery. These traditions seem to continue alongside the older Cord Impressed ware ceramic production regimes and introduce new and definitive elements into what has usually been called the Vindhyan Neolithic. As an example to illustrate this a tabulation of the known ceramic assemblage from Koldihwa is included below.

Table 3-2 Table summarizing the ceramic assemblage from Koldihwa[41]

Period	Thickness/ Layer no.'s	Ceramics	Forms	Designs / Fabric	Associated artefacts
Vindhyan Neolithic	Layers 3 & 4	CIW;	Convex sided shallow and deep bowls;[42] Jars with straight or concave neck, presumed globular from sherds;[43] Platters;	Cording pattern varies from thin and bold to incipient;[44]	
		Rusticated ware;[45]	Deep and shallow bowls; Platters; Spouted bowls; Jars;	Similar to CIW, except for exterior surface treatment;[46]	

[41] This table has been prepared from J.N. Pal, *Archaeology of Southern Uttar Pradesh: Ceramic industries of Northern Vindhyas* (Swabha Prakashan, Allahabad, 1986) pp. 90 – 96 Pal prefaces his discussion with the following notes: 'The clay used of manufacturing the pottery is not well levigated and contains calcium and iron granules. However, the clay is well tempered by rice husk and chopped straw which have resulted in cavities on the pot surface after firing. The semi-burnt temper has resulted into the blackish colour of the core of the pottery' p. 91-92

[42] 'with everted, thinned, thickened and featureless rims', ibid. p.94

[43] Rims noted as featureless.

[44] 'The pots shaped out of semi-levigated clay are not fired in high temperature. The surface color of the mats is dull-red and the colour of the core varies from blackish, ashy, grey to dull-red. Rice-husk and paddy straw have been used as temper. The cord impressed ware has a coarse fabric and porous core. Except a few thin sectioned sherds the section of the pottery generally varies from thick to medium. Handmade uneven body of pots has occasionally the palm and finger impressions.'

[45] The clay preparation, fabric, surface and core colour and firing condition of the Rusticated ware are similar to that of the CIW;

[46] The exterior surface is roughened by clay solution mixed with husk, chopped leaves and straw, grits and calcium granules.

		Burnished Red ware;[47]	Bowls;[48] Lipped bowl; Spouts; Jars;[49] Handis;	Thick red ochrous slip and subsequently burnished;[50]	
		Burnished Black ware;	Bowls; Jars;[51]	Similar to Burnished Red Ware but the slip is of black colour;[52]	

Table 3-3 Relative frequency of wares at Koldihwa in the layers attributed to the Vindhyan Chalcolithic

Ware	Proportion Layer 3	Proportion Layer 4
CIW;	44.02	69.25
Rusticated ware;	26.80	18.45
Burnished Red ware;	23.92	11.33
Burnished Black ware;	5.19	0.97

The period under consideration in this section is perhaps the most challenging and interesting of periods in the archaeology of the Ganga-Vindhyan region. It is marked by the clear rise of settled agricultural communities, which are expanding and diversifying in contexts and cultural practices. Further these processes are complimented by a massive change in ceramic practices and regional traditions. The changes in this domain include the rise of new technologies of slipped and burnished wares as well as what appears to be a number of different manners in which elaborately decorated vessels are produced. Further dimensions of marked change are in craft technologies and in the agricultural realm which seem to be the most striking and evocative. These changes have been often commented upon and have struck most commentators as being matters of Harappan influence,

[47] The clay mixed with finer temper is comparatively better levigated.
[48] 'The bowls being slipped and burnished on both sides, have almost smooth and even body.'
[49] In the cases of the jars, the slip and burnishing are confined to the outer surface alone.
[50] The fabric is course and section of the pottery varies from thick to medium. All shapes have been identified in Layer 3 alone where percentage representation of the ware almost doubles.
[51] Only body sherds in Layer 4 all forms are identified in Layer 3.
[52] The core is black or grey, the fabric is medium and section varies from medium to thin.

colonization or of fallout. If we are to make sense at all of the cultural tradition of the Ganga-Vindhya region, there is an urgent need to provide for a discussion of these matters and the effort here shall be take up each in turn and provide a statement on the issue.

First a word is required about chronology is required to emphasize the fact that the beginnings of these transformation are still somewhat obscure and that in terms of cultural groups we may be dealing with what is more than a single cultural group – facts often glossed over in the consideration of the evidence. It is important to provide a review both of the evidence which despite new dates from the last five years remains an extremely difficult dataset to interpret. Additionally, these problems take us back to the societies of the Early Holocene and it is imperative to review the entire set of evidence and seek out how the data organises itself. The Vindhyan group of Neolithic sites have provided an extremely complicated group of dates; their excavators have noted that almost all of these sites pass into the subsequent Chalcolithic period and that pit digging activities which date to that period have almost inevitably disturbed many of the layers of this 'Neolithic' occupation. Some of the dates from the 1970's were known to date to the 5th and 7th millennium BC and were generally disregarded in light of the later cluster of dates from these sites which cluster circa 1500 BCE. The excavations at Kunjhun, which is located further South of the main complex of these sites is known to have provided a date of the fourth millennium BCE and this, probably on account of the manner in which the site was published with fuller details of other activities and also of the contexts of the dating samples has generally met with greater acceptance. Something not often cited and drawn upon is the manner in which many of these sites have large deposits from this first period, often exceeding 2.50 metres in terms of total depth. Further, recent excavations at a large site of such cultural succession, Tokwa, was known to reveal a similar deposit and a multi-level radiocarbon program was attempted at the site with the aim of clarifying these vexing questions. All the dates, from all three labs which they had been sent to have not yet been comprehensively published but the fact that they cluster significantly to the period prior to the date from Kunjhun is important. Further even more recently the Allahabad University has excavated the site of Hetapatti, about a kilometre and a half to the North of their excavations at Jhusi and have found another Neolithic deposit, the dates from which when published should also contribute to do this resolution.

Site	**Sample Number**	**Calibrated date and range**
Tokwa[53]	BS-2417	6591 – 6106 BCE

[53] These dates for both Tokwa and Jhusi have been published by Rakesh Tewari et al, 'Second Preliminary Report of the excavations at Lahuradewa District Sant Kabir Naga, U.P :2002-2003-2004 & 2005-06' *Pragdhara* 15, 35-68

	BS-2464	4797 – 4051 BCE
	BS-2369	5976 – 5561 BCE
Jhusi	BS-2526	7106 – 7080 BCE
	BS 2524	5660 – 5612 BCE
	BS-- 2525	5990 -- 5932 BCE
Lahuradewa – 1A	ERL – 6442 (AMS)	6442 -- 6376 BCE
	BS - 1967	5298 BCE
	BS - 1951	4220 – 4160 BCE
	BS -- 2151	3654 – 3382 BCE
	BS - 2148	3363 – 3020 BCE
Lahuradewa – 1B	ERL – 6903 (AMS)	2345-2200
	BS - 2274	2919 – 2570
	BS -- 1950	2135 - 2056

These recent dates have often been cited as a vindication of the suggestions made in the 1970's about the date and the continuity of the Neolithic tradition. However as may be seen they present a thin continuity and the excavator of Lahuradeva even reported initially that there may have been a break between the early periods. Since then these radiocarbon dates have come through and it is hoped that the final and complete publication of the reports from Lahuradewa, Jhusi and Tokwa shall clarify the situation. It must be stressed that this is a problem which cannot be hoped to be solved via a study and tabulation of dates alone, it must eventually be resolved by detailed work in the field. Nonetheless, it must be stressed here that a number of possibilities exist and that evidence for each and every one of them comes through from different sites and thus the position taken here is that settlement in the Ganga-Vindhya region through the Early Holocene and Mid Holocene presents a complex affair and a dappled effect of sunlight and shadow, representing different densities of time in different regions and sites, may be an adequate metaphor to describe this. To be more literal than metaphoric, a number of possibilities are suggested: the extensive occupational deposit and its documentation at Lahuradewa, alongside the battery of multidisciplinary studies carried out do suggest that there is a possibility that the site was indeed occupied through the period that the range of dates describe, from the seventh millennium BCE though to the first few centuries CE. This occupation may have been seasonal and repeated for some phases, but there appear to not have been any major breaks, as the revised opinion of the excavator suggests after far more extensive excavations at the site were made. The recent excavations or 'sampling' conducted

at the sites of Chopani Mando, Mahagara and Koldihwa are examples of how observations about the sedimentology of the occupational deposit at the time of excavation are our crucial guide to the issue of resolving the matter of the occupation of the site.[54] Even here full detail are not forthcoming yet, but a brief summary has included the observations of the excavators. They suggest that Mahagara was a sedentary village site, while Koldihwa was one which saw repeated intensive occupations. Sadly their full observations and full details of the radiocarbon programme have not yet been published which is unfortunate given the value and the systematic nature of the program implemented at these sites.

There are further complexities; both the material culture and the nature of the site at Sarai Nahar Rai suggest an extremely early occupation, something suggested by the dates as well. Damdama, had provided some contentious dates which fell to c. 4000 BCE but recent AMS dates on the skeletons have confirmed that the site is contemporary with the Early Holocene occupations as the dates came back to c. 8000 BCE. Mahadaha on the other hand has provided a set of dates which consistently place it to be one of the latest of the cemetery sites, to c.4000 BP (?). I submit here that these are locations which are advantageous for many reasons, and especially in the districts of Jaunpur and Pratapgarh where we know of an extensive distribution of sites of the 'Vindhyan Chalcolithic' complex (to be discussed in detail below) there are possibilities and indications that sites may have been occupied after extensive period of time again. These are complexities which the archaeology of the region and of these periods shall have to work with for some time to come, and one way of organising the data seem to be try and resolve the testy issue of regional complexes.

Two complexes where we have early and substantial occupations are apparent, even if they are hooked on only one peg: these are Lahuradewa in the Sarayupar and the area centred upon Drummondganj in the Belan valley in the Vindhyas where within an area of a 15 km radius there are many of the principal and known sites of the Vindhyan complex: including Tokwa, Mahagara, Pachoh, Chopani Mando, Baghai Khor and Lekhahia, all of which have yielded early dates. The site of Lahuradewa currently stands in isolation but it appears that other such sites must exist in its vicinity and suggest that future explorations may reveal unique taphonomic issues specific to the region, which most likely relate to the shifting channels and sedimentation regimes of the Ghaghara and its tributaries.

[54] Harvey, E. L., Fuller, D. Q., Pal, J. N., & Gupta, M. C. (2005). Early agriculture of Neolithic Vindyhas (North-Central India). In U. Franke-Vogt & J. Weisshaar (Eds.), *South Asian Archaeology 2003. Proceedings of the European Association for South Asian Archaeology Conference, Bonn, Germany, 7th–11th July 2003* (pp. 329–334). Aachen: Linden Soft.

These two zones are likely to yield more sites and clusters within which we shall have evidence for continuous occupation from the Early Holocene downwards. It is clear that the exploitation of wild rices and Cord impressed wares are common to both regions, but as of now we have no grounds on which to compare these zones, separated by a distance of 230 kilometres, but a distance which is covered by more in more than half its length by a known and massive distribution of Early Holocene sites. Given the range of taphonomic issues which are known to have affected the presently imperfect knowledge of the distribution of these cultures this discussion believes that further fieldwork shall only reveal a more and more extensive early Holocene occupation of both the plains and other segments of the Vindhyan region.

Having clarified these testy issues this discussion now stresses the spatial aspects of these transformations noting that the earliest signs or passages into a later period, attended by the diversification of ceramic traditions too seems to come from this area of the Vindhyan region, and principally at present from the sites of Koldihwa, Tokwa and also from Kunjhun which is further to the south. Here it is argued that the rise of burnished slipped wares and the red slipped and rusticated wares begins in a period which is sometimes conflated with the earliest evidence and at other times placed to a much later period of circa 1500 BCE to which the sites of Mahagara have also provided dates. This position taken here, if summarized is that there is an early Holocene complex in the Vindhyan region, which displays trends of rudimentary pottery; This is a phase about whose foraging and sedentary aspects we still know little about but by some time in the fourth millennium BCE a trend emerges and develops which sees the settlement of more regularly and seemingly permanent settlements and witnesses the slow rise of more elaborate ceramic surface treatment traditions. How and when these trends came to influence others, or were paralleled by or even diffused out of this compact area is currently not known. But it does appear that by some time in third millennium BCE about 40 such sites cover this area and only future work can clarify the nature of these sites and establish the chronology which relates them to each other.[55] Most of these sites it must be noted seem to be in the 0-3 Hectare size range, although information on sizes comes from only a handful of sites. This cultural complex witnessed a series of changes in the course of the third millennium BCE and comes to a close with a series of transformations in the next period, which can be placed at roughly 2000 BCE.

There has been a rich spate of discoveries of a new complex of these sites in the region of the Kaimur hills in Southern Bihar, mainly known from an exceptionally detailed and prolonged

[55] There is sadly no single list of surveyed sites in the area and based on discussion with many of the principal investigators it appears that the number would but close to 40, but a comprehensive list needs fieldwork and it is not possible to generate one from archival sources.

excavation project at the site of Senuwar as led by B.P.Singh. The most important aspect of this site and the chronology also provided by Malhar, another site which seems to begin with a complex with a ceramic assemblage similar to that of the 'Vindhyan Neolithic' has been the chronology. A battery of dates establish that these sites came to be at around the period of 2300-2200 BCE and witnessed a series of transformation in the period of about 1900-1800 BCE when a new cultural era may be seen as having begun. These dates have however led to massive confusion in the manner in which the much disputed chronology of the earlier dates from the Vindhyan complex is to be interpreted. Suggestions have even been made to the effect that the Kaimur complex is older, as the Vindhyan complex has also provided a series of dates to circa 1500.[56]

The position taken here is that the Kaimur complex appears distinct, not only in the known elements of its material culture from the site of Senuwar but also in the regional context that it is located in and within which its distribution seems to exhibit a discrete and distinct regional network of communities. The most parsimonious explanation which seems to fit in with the picture which this dissertation has been arguing towards is that the Kaimur group constitutes probably the best documented example of settlement expansion which seems to characterise the Vindhyan Neolithic complex over the period of the third millennium BCE.

The preliminary publication of forms and types from Lahuradewa period IB and II also suggests considerable dimensions of cultural change in the period circa 3000 – 2000 BCE when new styles of slipped and polished ceramics emerge and distinctive types which include a dish-on-stand and a bowl-on-stand have been reported as well. There are other sites, such as Sohgaura which were excavated in the 1970's and are known to have presented complex evidence from the subsequent Chalcolithic phase and the presence of Cord Impressed wares at which have led to suggestions time and again that the site and others like it may go back further in time than currently thought.

It is this later period which has weighed heavily in the manner in which societies have been thought of and their origin and cultural trajectories understood and theorized. It is difficult to review the evidence from these zones without considering the arguments which have often been made, with reference to the materials of a later period, but as the aim here is to present the most parsimonious reading and interpretation of the trends the discussion here shall be split, even at the risk of needing to cover some of the ground twice. This is necessitated particularly by the manner in which the transitions and cultural transformations of the next period are worthy of their own consideration.

[56] Singh, Birendra Pratap (Ed). *Early Farming Communities of the Kaimur: Excavations at Senuwar*. (Jaipur: Publication Scheme, 2004)

The principal issue here is the manner in which the cultural process of the region has been linked with and understood in terms of diffusions or migrations from the Harappan world. There are many complex threads of evidence upon which this discussion has been hinged and these are primarily, in terms of the category of evidence, the presence of Wheat and Barley, which are thought to be crops which come from the Harappan world. The second category of evidence relates to the suggested ceramic similarities between forms, types or even wares which have been found at sites like Chirand, or Senuwar or even Lahuradewa. A third category of evidence comes principally only from Senuwar and has raised issues of the manner in which we understand the origins of craft traditions, especially lapidary and has raised a complex host of issues about the manner in which craft traditions in different regions may have come to be influenced by each other.

While it has never been established on grounds of genetic strains of the cultivars themselves there has been a general consensus on the broad and slow migration of wheat and barley cultivation, particularly as winter crops. It has generally been charted out as starting from Mehrgarh through to Harappan world and whence on it is supposed to have travelled in many directions, particularly, as it was presumed in the wake of the decline of the Harappan civilization. This is one of the main legs on which an argument for Harappan migrations, or Late Harappan populations diffusing into the Ganga-Vindhya region has been based and has seen many different forms. Some commentators have seen the arrival of these crops as signature enough but have recognised the deeply marked differences in all other realms of material cultures being compared and have recognised that this complicated the picture considerably. The main thrust for this argument also stemmed from the early radiocarbon evidence where it was thought that the first cultivation of these crops generally post-dated the year 2000 BCE thus placing it in a world thought to be populating by migrating Harappans and / or conquering or colonizing Aryans. On the basis of current radiocarbon evidence it appears that there is some regional variation in the coming of these changes: at Damdama in the Ganga plains circa the year 2500 BCE seems to be a crucial period, while at Senuwar in the Kaimur foothills, a comprehensive radiocarbon and floatation programme suggests a significant and marked change only at around the date 2000-1950 BCE. At Lahuradewa there is a marked rise of different ceramic traditions at circa the year 3000 BCE and further evidence for the cultivation of Barley comes again in the course of the third millennium BCE. At Chirand too, where palaeobotanical work comes from the generation of studies prior to methodical sampling, there is evidence for the presence of these crops. A robust radiocarbon chronology does exist and it appears that there may have been cultivation of these crops by 2200 / 2300 BCE. The wide scatter of these dates across the third millennium BCE suggests that this is a transition to new food crops and if the suggestion holds that these crops introduce a system of winter cropping, which has been another untested assumption, it

may also mean that this was a period of change which suggested the slow rise of different paradigms of settlement ecology and may perhaps be a clue to the new areas in which settlements are seen to rise and proliferate.

Some of the most recent arguments for episodic change have come from Senuwar where period IA (2200 -1950 BCE) is meant to have been marked primarily by rice alone amongst cereals and at the end of its course, there is dramatic change, with what Fuller has argued as a Harappan crop package as arriving in the very earliest levels of the next period which begins c 1950 BCE. While the palaeobotanical sampling strategy at Senuwar was perhaps the most comprehensive one attempted at the excavation of a north Indian site to date, it was limited by the area that the excavator was able to expose for the earliest periods (constrained by the strategy to conserve structures from levels above). Further, as shall be argued below, the evidence for crafts from Senuwar itself tends to blur the sharp line quite strongly and additionally one half of this 'crop package', barley is under cultivation from what seems to be the very founding of the site. The discussion here would like to stress the other half of the picture as well, that rice, taken to be as typical of the Vindhya-Ganga complex, has been found at Early Harappan levels at Kunal, c. 2850 BCE and is known to have been cultivated in subsequent periods at Kalibangan as well. Thus, it appears that we are dealing with two large spheres which in the course of what must be a complex series of interaction are exchanging and adopting new foods and food ideas. The botanical evidence is quite complex in both halves in the early periods and it is not as if either is defined only by the presence and the absence of the traits which are being highlighted here.

Dorian Fullers recent synthesis of the available palaeobotanical evidence from all of South Asia has come to surpass and replace all prior considerations on account of its unrivalled marshalling and collection together of all the available evidence as well as the new observations and evidence it has also provided. Nonetheless, there is a sense of unease left in the manner in which, complex and nuanced but essentially diffusionary arguments structure the manner in which all processes other than those of independent area have been considered. Fuller has provided a model by which he seeks to frame these patterns of interaction and it is a model which speaks in terms of moving and static frontiers, where a range on possibilities in which cultural interactions can be seen as occurring have been mapped out. The problems, however may lie in the two essential categories upon which this paradigm of interactions is built upon: those of hunter-gatherers and agriculturists and essentially imparts a telos and a trajectory which maps out the growth of the originary or albeit transformed agriculturist culture. There is a notion to simple and effective logic to Fuller's thesis but it seems clearly to mask and gloss over all that has been documented for the Ganga-Vindhya

complex where in particular through much of the mid and early Holocene it seems difficult to sustain a notion any longer of 'hunter-gatherers' whose ecology does not involve complex strategies of the exploitation of faunal resources. Fuller has also provided an extensive discussion of the need to differentiate any use of wild resources with the first known evidence for domesticates, as this is major step which would record the transition to a culture of protecting and thus cultivating the plant. This an accurate observation, particularly in its clarity upon what may be the best archaeological manifestation of the transition to a system of cultivation and all its antecedents and has stressed how we do not know as much as we would like for the region in order to be able to cultivate its early trends of plant use and domestication.[57]

If pots truly equalled people, eastern Uttar Pradesh and Bihar would still appear to have had a smattering of 'Harappans'. Time and again, selected forms and types of the early pottery of the region have reminded the excavators of sites such as Chirand, Senuwar, the Koldihwa-Kakoria complex of the next phase, Sohgaura and most recently even Lahuradewa. A common thread in all of these elements seems to have been the category of the Dish – on – Stand, has often been the most evocative and obvious of all of these comparisons. Slim vessels which appear to have been thin and tall, designated goblets at Chirand have been another such type considered redolent of the Harappan world. At the same site there have also been reported a few sherds of a 'knobbed ware' a type which is known to have had a small distribution in the Harappan world. A last set of quite extended and most publically debated comparisons were made about the Kakoria-Koldihwa complex and its relations with possible Late Harappan ceramics in situations as diverse as Rangpur and Bhagwanpura.

A telling entry point into these suggestions and readings of the material culture is the manner in which the Aryan – Harappan binary operates and works. We cannot, it would appear, think of any other alternatives nor paradigms when it comes to building upon material cultures and assemblages towards a theory of identities and communities. In the Dark Age, new cultures, which were definitively pre-NBPW could thus be only one or the other. B.B. Lal's initial positions on this were unequivocal and were in many ways also made in defence of his theory of the epic traditions and their historicity. Lal and his associates had provided what are perhaps the most consistently argued position on the absence of any Late Harappan influences, contacts, artefacts or legacies in the Ganga-Yamuna doab only to reverse their stand in the mid 1990's by stressing the unbroken continuity of an Indian civilization, *read* Aryan, which also subsumes the Harappan within its folds. The trajectory which B.P.Sinha took in his positions on the cultural complex under review in Bihar sat

[57] Fuller, D. Q 2006. Agricultural Origins and Frontiers in South Asia: A Working Synthesis. *Journal of World Prehistory* 20(1): 1-86

uneasily with this picture and given that one of Lal's most concerted statements is the subsequent article in the landmark volume is it worth quoting from both: From Sinha 'The Dish-on-Stand is a characteristic, if not diagnostic, Harappan form'[58] and Lal 'As regards the Dish-on-Stand, it must be stated that his stand is not confined exclusively to the Harappan culture, having been found in both the Ahar as well as the Malwa Cultures'[59] Ceramicist contacts and cultural influences have been a methodological stumbling block in Indian archaeology as the manner in which they have been attempted, broad and often without detailed comparison. The Dish-on-Stand argument originates with Wheeler and Piggott, and despite the wide distribution that Lal notes, there have been no comprehensive efforts by which we can come to compare these often completely different forms which apparently share not much more than the basic idea.[60] The discussion here would like to stress that the idea of a pedestelled vessel itself, is something that may have multiple origins and the idea of tracing its diffusion as an element in fineware and table wares may not be an archaeologically valid quest. The morphology of the type is an important and quite neglected source of the information it provides. As shall be demonstrated in the next section, the bowl-on-stand / pedestelled bowl, is an extremely important component of the societies which follow in the subsequent Chalcolithic period. It is brought up here because in the very first recognition and publication of the type it was referred to as a dish-on-stand for quite the same reason that the linkages above have attempted to seek out cultural history in a bare resonance of reified form types. The dish-on-stands from Chirand, Chechar-Kutubpur, Senuwar and Lahuradewa all appear to be a distinct regional tradition: they are all manufactured in a Black and Red Ware, and only very occasional examples in a Black Slipped Ware have sufficed. The broad wares within which this type are produced are thus, distinctly regional, and if still an argument is sought to be constructed on the base of the type, or the idea of a pedestelled ritual / tableware type, far more detailed studies are required. The argument made here is that on the basis of the other evidence it is clear that the regional societies of the area do appear to have had some form of contact with the those in the East and which are implicated in the larger Indus World. It is to a review of these other categories of evidence that this discussion shall now turn.

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[58] B.P.Sinha 'Harappan Fallout (?)in the Mid-Gangetic Valley' in Possehl, Gregory L. Ed.. (1982), *Harappan civilization : a contemporary perspective* (New Delhi: Oxford & IBH Pub. Co. : American Institute of Indian Studies)

[59] Lal 'West was West and East was East, but When and How did the Twain meet? The Role of Bhagwanpura as a Bridge between Certain Stages of the Indus and Ganges Civilizations' in Possehl, Gregory L. and American Institute of Indian Studies. (1982), *Harappan civilization: a contemporary perspective* (New Delhi: Oxford & IBH Pub. Co. : American Institute of Indian Studies)

[60] The lack of any quantitative studies has been a major reason for this, while a more general and anecdotal appreciation of certain differences such as corrugated stems and drooping rims have been made. The only effort to collate information, which is now dated and is hampered by imprecise drawings is that by Omi Manchanda, *A Study of the Harappan Pottery*, (Delhi : Oriental Publishers, 1972)

A certain form of a decoration consisting of appliqué protruding knobs on the other surface of a vessel is known from the Amri-Nal Pre-Harappan traditions and is subsequently also widely distributed in a plain form during the Mature Harappan phase leading Mortimer Wheeler to describe it as one of the defining traits.[61] There are some apparently undisputed sherds of this category amongst the ceramics of period IA at Chirand.[62] At Senuwar, the evidence comes from an entirely different category of evidence; in the form of a distinct tradition of bead making in Agates and Carnelians of which the Kaimur is a known and major source. It is here that in the earliest levels excavations have documented the production of beads, and archaeological debris of that process in many forms. These include, not only unfinished beads but a distinctive type of drill bit used to drill holes in the beads which the excavators suggest 'reminds one of Harappan craftsmanship'.[63] The production of drill bits and their recent and detailed study has stressed both the extremely wide-span of drilling technologies in the South Asian zone but has also pointed that while some technologies are clearly marked as regional and temporal innovations other are far more widespread in context of space and time as known from the archaeological record. Thus, Kenoyer and Vidale's work has stressed upon the use of still little understood mineral called Ernestite, sourced and used by the Harappans, as drills for their massive bead production workshops on account of its hardness and higher efficiency in drilling as compared to cherts. Moreover they have documented that while the Harappan bead-makers seem to have used a wide-variety of drilling techniques and constructed drills accordingly. They argue that there exists a wider tradition of making tapered cylindrical drills, constructed out of soft stones like cherts and which is contrasted with the Harappan innovation of producing constricted cylindrical drills, to a standardized ideal and from harder stones. A later innovation is also marked in the use of a Copper tubular drill which has been identified from studies of drilling patterns on the interior of beads and unfinished beads.[64]

It is important to also note that these detailed studies have been enabled only by the recovery of these small artefacts via dry sieving of excavated sediment, a practice which is only rarely employed even today in South Asia. Thus it is entirely possible that a range of drilling technologies have been under the spade but not documented as they have been at Senuwar. In terms of the typology of Kenoyer and Vidale, the Senuwar drill-bits are clearly tapered cylindrical drills. It is thus argued here that the presence of a bead workshop and even of a few finished specimens of types like the long double barrelled carnelian bead do not suffice as evidence for Harappan occupation, migration or

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[61] R.E.M. Wheeler, *Civilizations of the Indus Valley and beyond* (London,: Thames & Hudson, 1966)
[62] B.S. Verma, *Excavations at Chirand*,
[63] B.P. Singh, *Early Farming Communities of the Kaimur: Excavations at Senuwar* , Vol. 1, p.608
[64] J.M. Kenoyer and Massimo Vidale, A new look at stone drills of the Indus Valley Tradition by J. M. Kenoyer and M. Vidale. in *Materials Issues in Art and Archaeology, III,* Vol. 267. Edited by P. Vandiver, J. R. Druzick, G. S. Wheeler and I. Freestone. Materials Research Society, Pittsburgh, pp. 495- 519

even at present, given our lack of knowledge about these craft traditions in the area, for the migration of these traditions, or borrowing of them from the Harappan world. What they do illustrate however is the fact that period IA at Senuwar is far from being any Neolithic community in a primeval sense and displays a complexity in craft traditions which needs further attention and consideration in the manner we characterize these societies.

The other major category which has been seen as a major marker of the Harappan presence is the presence of steatite disc beads and of the incredibly miniaturised steatite Harappan micro-beads as well. These artefacts, of both categories are known for the tremendous technological efforts required in their production and have long been taken as one of the best representations of the 'Indus technological virtuosity' and there has been considerable speculation on the manner in which they had been manufactured. It appears know that the technique involved the careful selection and preparation of steatite blocks which where then prepared, perforated and sliced prior to being fired which turned the gray-black incredibly soft stone into the white and very hard substance which we recover. In the 1960's and 1970's these were noted alongside carnelian beads at sites like Chirand and contributed to the overall argument at the time. Since then they have been found in the period under discussion, i.e. the third millennium BCE at Lahuradewa, (where an earlier presence may be attributed to some disturbance in layers) and at Senuwar as well.

Again, the argument which this discussion shall stress is two fold and relates to the much greater need to study regional distributions before we make arguments about cultural contact, migrations and diffusions. Steatite micro-beads and even disc beads are known in the Harappan contexts as a marker of status and luxury and are known to have been found often in discreet and extremely large amounts. What has not as often been noticed is that these beads also have an extremely wide distribution amongst cultures of the third and even more importantly the second millennium as well. At Zekda in Gujarat, in what is a notably regional culture, there was found a large hoard. More strikingly, what is perhaps till today, the largest reported single find, of an estimated 40,000 was found in a pot at Kayatha, the type site of the little understood cultural formation of Western Madhya Pradesh. It is important to thus contextualize this trend and thus appreciate the fact that if at all the trend which is revealed suggests participation by elites in different areas in a common style of adornment which no doubt had much symbolic value in terms of status and the display of wealth. More often than not, there has been a manner in which the ancient trade of artefacts has itself been reduced to a caricature of some form of exoticized exchange rather than seeking to locate it in its context. The second argument made here is that like the Dish-on-Stand these beads may have had an origin or a valorised place amidst the Harappan world, but the distributions and contexts of the

steatite disc beads in particular only proliferates and grows in the second millennium BCE.[65] The Chalcolithic of the Sarayupar is a conspicuous zone where Bhunadih in Ballia, Imlidih Khurd and Lahuradewa are known to have yielded a number of examples. In the Bihar plains a similar distribution is noted at Chechar-Kutubpur and Chirand, whilst still further east such beads are also known from Pandu Rajar Dhibi. Additionally it may be stresses that there are distributions in the Malwa culture sites, Khedinema for example and that the distribution spreads wider to include even the Andhra Megalithic sites, including prominent burial contexts at Ramapuram and at Singanapalli in the Kurnool area. Given this later period's evidence as well it seems wise to premise that the bead type itself becomes adopted in many regions and may have been produced in multiple centres as well. As no evidence is forthcoming yet for the production of these beads from any other site than Harappa it seems parsimonious to presume that while the production of these may have arisen as a significant part of the 'Indus technological virtuosity', yet its longer trajectory through time especially in the disc beads suggest that their production became a more widespread and polycentric affair. This is particularly also suggested by the fact that both the Kaimur and Telangana-Kurnool belts there are extensive steatite deposits, many of which are commercially exploited even today. This is perhaps a strong indicator that these may be traditions which were once foreign but later local to these regions. Yet, as a recent study by Law has demonstrated for the Harappan case the selection and use of fired steatite is subject to many complex processes, which include both technological and aesthetic considerations over and above those of availability and proximity. Thus, any such suggestion is only hypothetical under sourcing studies can compare these known deposits of steatite, especially in the Gaya and Munghyr districts of Bihar to the actual steatite used in the beads.

A final point also needs to be raised about the general manner in which cultural comparisons and cultural evolutions have been related to material cultures in the Kaimur and Vindhyan context. Most recently in the context of Senuwar, an old argument has been restated about the manner in which the ceramic decorative tradition of paintings in red ochre upon gray wares and the existence of triangular butted celts suggest connections with the South Indian Neolithic. The fact that these comparisons have been made over a long period of time, and continue to be made, without any linkages, explanation, inquiries into technologies at work or at even a suggestion of the presumed social processes at work serves as a great example in the manner in which both artefactual study and the culture-historical mode it is tied down to continue to structure, limit and disable the study of these early societies.

[65] It must be noted though, that there may be some inter-observer variability in what has been reported as steatite, paste and at time even bone.

This lengthy discussion has been attempted here in the effort of clarifying the cultural context of the societies of the Eastern Uttar Pradesh and Bihar belt of the period. It has attempted to demonstrate that while there is evidence of cultural contacts during this period with the complex transformations associated with the Harappan world to the West, these are by no means tantamount to an argument of migration or even of cultural diffusion. There is much which needs to be clarified and investigated before we can attempt to build a theory of cultural change and development. Yet, one trend that does emerge clearly is that there appears to be a change in ceramic traditions which is indigenous to the region and occurs around the year 3000 BCE or perhaps even earlier. The previous tradition of unslipped Cord Impressed Wares comes to be supplemented and largely replaced by slipped and slipped and burnished wares which are prepared in both oxidizing and reducing environments. For the first time a far more diverse ceramic assemblage burgeons which seems to include, with some regional differences within this area, even early table-wares as well as evidence for the rustication for cooking or water heating / storage vessels.

In conclusion this discussion must also stress that we currently only vaguely understand the limits of this cultural distribution in the Vindhya-Kaimur and Ganga regions and any picture that we can attempt to build of it shall remain entirely premised upon this fragmentary understanding and liable to considerable revision as future discoveries are made. As has been argued above a major complex which seems to emerge at an early date is that in the Belan valley and is represented by a number of sites, which could number up to 40. Most of these appear to be small; none larger than 5 Ha at this period and it appears they may have seen seasonal occupation. In terms of its ceramic assemblage the most closely related to this cluster is the group of sites in the Kaimur foothills of the region bounded by the Belan and represented by Senuwar. Here explorations associated with the Senuwar project have documented a whole cluster of sites in the foothills and on the pediment slopes looking out towards the plains and it appears that further exploration in the region shall lead to a further documentation of this evidence. The chronological evidence from the site of Senuwar provides a chronology securely beginning at 2200 BCE and if this is true for the entire complex we may be seeing evidence of settlement expansion into a new micro-region and the establishment of a local community in a new region.

There are now two clusters of the 'Neolithic' sites upon the Ganga, one of which is right at the Sangam and is known from two sites, Hetapatti and Jhusi. While no radiocarbon dates from Hetapatti have been published yet, there are three dates from Jhusi which present an Early to Mid-Holocene context,[66] which at the very least, given the thick deposit for the period suggests a

[66] The dates from Jhusi in Calib BCE are: 7977, 6196, 5837

continuity into the period under discussion. It is important to note that the cultural assemblage (in terms of ceramics) for this complex on the Ganga and that of the Kaimur group have been described as 'identical' with the only difference that has been noted is that the Kaimur group seems to be distinct in having displayed a tradition of a slow wheel or turntable supplementing and possibly representing an innovation in this otherwise handmade pottery tradition.

In addition to these three complexes and in significant contrast to these are the two sites in the trans-Ganga region, those of Lahuradewa and of Sohgaura, both of which appear to have had a Cord Impressed Ware tradition at the base and at some point of time in the third millennium BCE, demonstrate a transition towards a culture where the production of fine Table wares, most prominently including White painted Black slipped Wares begins and is accompanied by a tradition of Dish-on-stands, pedestelled bowls and a seemingly distinct cultural identity. At Lahuradewa as at Chirand and other sites we have clear evidence of houses provided with hearths and what appear to be storage bins. The site of Lahuradewa also undergoes documented expansion during this period and it appears only parsimonious to suggest that there must be other such sites in the region including those which are now either encapsulated or buried. The recognition of these from surface materials during survey is a complicated affair, a discussion of which shall be afforded in the next section, and is one reason why so few sites have been positively documented from this early period in that sector.

Thus over the course of the third millennium we have clear and definite evidence of the growth and expansion of regional communities which may be possibly related in a set of distinct societies in the region. While poorly documented at present we certainly have some evidence for what appears to be a major change in cropping regimes and cycles which by the close of the period comes to be defined by a broad spectrum of cereals and pulses in addition to an earlier tradition of millets, rices and other diverse flora. The status of faunal domestication during this period is still debated and appears to be complex and definitive evidence for domestication seems to come from only after the end of this period. There seems to be a tremendous diversification and transformation of these cultures, circa the period 2000-1700 BCE and this shall be the next period of discussion. Prior to that this chapter shall now turn to an attempt to review the third millennium BCE in the Northern subcontinent.

VI. The period from 2500 – 2000 BCE: A regional review

The previous discussion has highlighted the fragmentary yet definite record for the rise of regional societies in the various segments of the Ganga – Vindhya region at a time contemporary to when there is a known transformation in the western half of the subcontinent. This refers of course to the massive Mature Harappan system, which sees the rise of Urban societies and witnesses demographic expansion and tremendous complexity in the crafts and products which seems to attend to the societies of this world. As was suggested above in Section IV of this chapter there are current trends to see this world as a closely related web of many worlds and 'domains' which are organised vis-a-vis another in a changing way. Even with such a view it is apparent that on whatever scale we choose to measure social processes or indices of complexity, the processes active in the western region are complex, vibrant and intense. One measure of their intensity is the massive supra-regional resource acquisition networks that they seem to have been implicated in and which they may have indeed fostered and promoted through a range of interactions with a host of different communities in area outside their own cultural distribution.

The usual manner in which this trade and the interaction has been visualized has involved the emplotment of crucial social evolutionist parameters by which the ancient societies of South Asia have been judged. The arguments presented in chapter attempted to review new radiocarbon evidence and other evidence from the Ganeshwara-Jodhpura complex to suggest that the margins of the 'Harappan world' too were populated by distinct cultures, with their own trajectory of cultural evolution which too seemed to be an important part of this cultural mosaic. A major part of this argument was the fact these cultures which had traditionally been considered as those which had succeeded the Harappan world, are now increasingly being considered as contemporary to it, from the very earliest phases and this is something which may represent the plurality of cultural trajectories evidenced in the cultural record. Indeed as the most major and comprehensive sourcing study and review of the sourcing of the many exotic and varied raw materials which were essential to the articulation of Harappan cultural identity documents – this depended entirely upon a massive network of inter-regional trade which connected many different sectors and thus cultures. Owing to this study now we are in a situation where we understand the manner in which various materials were moving in some detail and complexity and yet we understand comparably little about the manner in which such exchanges were conducted and negotiated and the social processes which are behind them.

The period of the second half of the third millennium BCE is also known for the rise of other distinct regional cultures and it is the purpose to review them here and note that two of these of these groups have a marked connection with the Harappan world. The first of these is the cultural complex known after the type-site of Kayatha which has been excavated twice and is known to have produced an extremely distinctive ceramic identity and a known distribution of about 40 sites, primarily along the Chambal river. The origins of the culture seems to have been through local processes as known elsewhere and is linked to the previous phase of microlith using communities in the region and is borne out by the continuity of short blade assemblages as an integral part of the assemblage into the Kayatha period. Whilst it is extremely difficult to know much of the culture beyond the excavated type –site it is clear that it had an extensive distribution which stretched along the Chambal river from the Ujjain region through to the Mandasor area. The excavated site itself has provided us with a better record of the social complexity of the area than have many other excavations of ‘Chalcolithic’ sites. Amidst what appear to have been largely mud brick and wattle and doab constructions a large house was discovered seemingly on account of its size alone to have been differentiable from the other structural evidence. It is within the confines of this house that the series of what appear to have been traded and prestige goods of 2 necklaces of agate and Carnelian in a pot and another pot which contained approximately 40,000 micro-beads of steatite. Rare has been the evidence of social differentiation and the articulation of elite identities in terms of the larger, regional patterns of material culture been so clearly recorded and presented to us. Unfortunately the cultural complex has not seen much renewed investigation in the period since the excavations and initial surveys of the 1970’s and it shall remain impossible to provide a richer characterisation of this regional society without further field investigation.

Kayatha has provided an example which is well within the fold of the ‘Chalcolithic’ spectrum yet it bespeaks of the complexity of cultural processes which are at work in this sector of Madhya Pradesh and may have even been active elsewhere in the region of Madhya Pradesh as well. The revised chronology of the Ahar complex as detailed above is also something which has considerable implications for the manner in which we understand the Kayatha complex. The interaction between the two complexes is known to have been intricate with Ahar type Black and Red ware sherds known at Kayatha, where subsequent to the Kayatha period, an independent Ahar period has also been suggested. This manifestation of the Ahar complex of Kayatha has been suggested to have been one of colonization, something which seems clearly overstated but it represents a cultural expansion of the Ahar culture out of the Banas basin which it has been all too often tied down to.

The recent submergence of many areas in the Khandwa and Khargone districts due to the construction of the massive Sardar Sarovar Dam on the Narmada was the reason for the initiation and in depth archaeological survey of the region for a number of seasons in the early 1990's. One site discovered and excavated in this course was that of Chichali which has now formed the easternmost extension of this group and represents the only known location of what must have been an entirely different regional distribution of the culture, or of a local culture which had strong ties with the Ahar region sites. What Chichali represents, in terms of its evidence of megalithism, again unknown in that region prior to its excavation is that there is much that is still unknown about the cultural history of the western regions of Madhya Pradesh. Given this it is perhaps wise to be tentative in the manner in which we are to visualize these processes and understand their chronologies, especially as so many areas of Madhya Pradesh still represent uncharted territory. Another such example has been the example of Pipliya Lorka, in district Raisen which has produced at its earliest phase a ceramic assemblage which is seemingly independent and distinct in terms of its own tradition of a Black and Red Ware made distinct by bowl forms painted in designs in white which have not yet, ever, been documented in the Ahar repertoire. Pipliya Lorka represents that even today there are substantial discoveries to be made in terms of what the basic aim stated in the 1940's had been: to prepare a grammar of cultures for different areas.

Another group of sites which illustrates the processes and cultural formation at work which we may not have recognised at all are those which had been documented by V.S Wakankar along the Chambal in two entirely different zones and were termed as Harappan or Late Harappan in terms of the assemblage which had been found at these sites. One of these sites again, was in the submergence zone of the Indira sagar Dam on the Chambal and was excavated where some form of a mud-brick platform and a thick and sturdy Red Ware, often diagnosed as part of a Harappan tradition was found in forms which are not usually known in the region in any such ware. The finds from this site of Manoti, which included a 'doubtful steatite seal' have sadly remained unpublished and the sites is now submerged.[67] Further North, in the Morena region, another complex of three sites has been described twice as representing another similar Late Harappan complex, but in the absence of any further details all this discussion can do is to mention these reports and place them within the mosaic that has been described.[68]

This review of the regional cultures of the northern half of the subcontinent would not have been complete if it had not mentioned the Northern Neolithic complex as best known from Burzahom, Gufkral and Sarai Khola. The regional complex here is known as arising from an aceramic Neolithic

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[67] Excavations at *Manoti*, District Mandasaur." Indian Archaeology: A Review 1959-60

[68] S.A. Sali and M.S. Bhadoria, IAR 1981-82, p., p.31-32

phase, known primarily from Gufkral and more recently from Kanispura. The latter site has placed the beginnings of the complex into the fourth millennium BCE and thus it appears certain that by 2800 BCE, which is the date from Gufkral, a regional society is in place. The subsequent cultural transformations in terms of the emergence of a distinctly regional set of artefacts is well understood now and includes a ceramic assemblage as well as the production and presumably exchange of a set of polished and ground stone tools, which include not only axes but a harvester type. The most striking find of the excavations at Burzahom and something that has been raised repeatedly is the fact that two (late) Kot Dijian large pots were found, one of which bears a larger horned figure. One of these pots was found to contain over 942 carnelian beads of the type which are typically associated with Harappan and early Harappan contexts. It was since presumed that the people of the Northern Neolithic and the Early and Mature Harappans were engaged in some sort of trade, and metals and timber had been suggested as likely commodities which were implicated in this and transported down to the plains. The recent sourcing study by Randall Law has proved that the Harappan presence as well as these manifestations of trade can be securely tied to a need and interest in the securing of the Lead resources in the Jammu area which were crucial and implicated in the production of silver artefacts in centres as far away as Harappa and Mohenjo-Daro[69]. Law has also described the need for further sourcing studies in the region to help establish whether other raw materials were being sourced and traded from the area or if so which ones?

The early dates for the complex which stretch back into the fourth millennia and beyond are important as they stress the possibility that this complex may have had its own slow and distinct trajectory towards cultural complexity. A discussion has been afforded about the fact that some of the known and suggested pastoral ground for the people of the Northern Neolithic may have overlapped with those of the Kot Dijian and is a form of interaction that this discussion needs to point to and highlight as it suggestive of the various manners and modes in which societies have interacted and impacted upon each other in the course of South Asian history.[70]

Over the course of the third millennium BCE thus the parts of Northern South Asia which have been under discussion thus saw a multitude of regional cultures. The discussion above has attempted to highlight the manner in which this mosaic of cultures has been implicated in a vast range of networks, something which previous discussions have failed to consider. It is apparent that at present we understand best the economic aspects of these relationships, particularly those which

[69]Randall William Law II, Inter-Regional Interaction and Urbanism in the Ancient Indus Valley: A Geologic Provenience Study of Harappa's Rock and mineral assemblage, PH.D Dissertation submitted at the Department of Anthropology, UNIVERSITY OF WISCONSIN – MADISON, 2008 , Page 707

[70] Randall Law, ibid., p.760 for a discussion on how such interaction may have been crucial as an epistemic link in the forging of knowledges about raw materials, their distributions and the possibilities for exchange.

focus upon the exchange of specialized goods, such as those in copper or in the exchange of a variety of raw materials particularly those focussed upon trading networks associated with the Mature Harappan phenomenon.

In terms of social and political characterization this is a tortuous period for Indian archaeology. The early and formative debates and the manner in which they construct a discourse layered with ideas about race, migration, colonization and invasion has already been highlighted. An equally difficult problematic has been resolved in the manner in which even revisionist socio-cultural theory of the late twentieth century has engaged with these cultures. The most epochal example of this are the intense problems associated with characterising the Harappan world in political terms; thesis have ranged widely from a single unitarian state to that of many chiefdom like formations. It is not out of place to say that none of the hypothesis suggested has met with much accord or consensus.

Stepping out of the culture-historical framework of a 'Neolithic' and 'Chalcolithic' double-bind also leaves us with a vacuum of categories other than those which stress the regions and the cultures themselves. This perhaps may offer a route to future consideration, especially when given that we seem to clearly be dealing with a range and a spectrum of different societies. It is here argued that the third millennium BCE constitutes an era of tremendous social change and formations across much of the considered area. With the possible exception of the Northern Neolithic, for which too now there is a growing series of earlier dates, I do not believe that any major transition was witnessed from a stage of hunting – gathering to a stage of the pristine 'Neolithic' in this period. To recognize this is the first step towards a better characterization of these societies. People in all of the contexts described above had been familiar with a pattern of floral exploitation and of some forms of rudimentary agriculture as well for some time. Change in the techniques, regimes and cycles of agricultural production do seem to occur over this period and appear to have been inflected by the intercultural milieu that appears to develop and be articulated in a vast array of networks which are especially evident by the third millennium BCE. It appears that the patterns of faunal domestication and the rise and spread of pastoralism as well as cattle keeping may have far more complex origins and trajectories in various parts of the jigsaw puzzle.

Undoubtedly, the Mature Harappan phenomenon is the most powerful cultural record which is in evidence and it speaks of an integration of more people across South Asia into a realm of shared culture than ever before. It is important to stress that we still do not entirely understand the differences within, and it may appear that even at the height if the Urbanised mature Harappan phase there were significant differences in the organisation of societies in what has been tentatively termed the different 'domains'. The attempt to characterize these societies and others which

cohabit specific niches in this expanse of time and space meets with many stumbling blocks. The concept of heterarchy especially as deployed by Rizvi[71], and discussed above, has provided a radical method of decentring our imaginings of the past and opening the door to the manner in which we can repopulate them with the cultural and what would appear to be ethnic differences that seem to be on record. Yet, it still requires an in depth characterization of each of these complexes to address the nature of the elements which make up this polyvalent social system. This is where the challenge lies in the course of our study.

The Harappan case is not alone in the demonstration of how socio-cultural theory and the material cultures of South Asia have proved to be the most intensely problematic of bed fellows. Many problems have arguably hinged upon the manner in which archaeological criteria for complexity and political formations have been derived from 'universal' standards and chased down in the subcontinental context. The other problematic refers to the nature of the forms which are sought to be identified at all – indeed these have largely conformed to the band-tribe-chiefdom-state evolutionary ladder. There are additional problems as well, the discussion above has been tightly bound to culture-historical categories and these may or may not represent a single social or political unit and characterizations need to be aware of that as well. Thus the attempt to characterize the regional complexes here returns to the theme of this discussion, the gross trends of distribution themselves as they offer us the most reliable indices in combination with the manner of consideration of the evidence above.

Cultural Complex	**Total Number of sites**	**Largest known site (Ha)**	**Number of known clusters of distribution**
Vindhyan- Belan	~40	5 Ha?	2
Vindhyan- Ganga (Jhusi)	2	0-2 Ha	
'Vindhyan' - Kaimur	13	No estimates, but seem to be within the 5 Ha limit	13
Bihar- Ganga	5?	No estimates	1
Trans-Ganga complex	2	5-10 Ha for Lahuradewa	1?
Kayatha	~40	No estimate?	Extensive distribution along

[71] Uzma Rizvi 'Configuring the Space In-Between: Redefining the Ganeshwar Jodhpura Cultural Complex, North Eastern Rajasthan, India' Unpublished Ph.D Thesis, 2007, University of Pennsylvania

			the Chambal
Ahar- Udaipur and Banas region			
Ahar- Malwa			
Ahar- Narmada			
Ganeshwara-Jodhpura	~110 (including smelting sites)	10 Hectares	Rizvi defines 4 complexes in the core area near Sikar, further documentation suggests a spread which may define further such clusters.
Northern Neolithic	~25	7.8	Major cluster in Jammu, but patterns of transhumance may suggest a wider spread, especially towards the South.
Early Harappan			
Amri-Nal	113 +81		Large settled area in Baluchistan and occurrence in the North Gujarat Corridor
Sothi Siswal	165	40 Ha (Rakhigarhi)	Seems to be defined by densest distribution in districts Jind and Hissar and also along the Ghaggar, with significant clusters to both the North and south of it. Also a reported occurrence at Manda in Jammu
Kot Diji	111	40 Ha (Harappa)	Significant distributions in many sectors, see map--
Mature Harappan	1019	Largest to c. 225 Ha	

In this discussion we are hampered again by the quality and variability of the data that is available but the scale to which societies which seem to share the basic culture-historical attributes that are suggested to define them are clearly on a much varied scale. The early Harappan cultures themselves show considerable variation as the Kot Diji phase settlements are known to distribute in a number of different niches and sub-regions within a larger region, often lying on borderlands which suggest dimensions of interaction, exchange and expansion. The Sothi-Siswal group on the other hand demonstrate a marked tendency to a much greater degree of clustering in the general area of the vicinity of the site of Rakhigarhi, as well as bearing a marked distribution along the course of the Ghaggar. The scale and the manifest complexity of the material cultures of these societies as well as the clear and demonstrated existence of settlement hierarchies which are pronounced suggest that these regional societies are marked by considerable complexity in the manner in which these are organised.

It would appear that the Ahar-Banas, Ganeshwara-Jodhpura and Kayatha complexes are not as extensive nor numerous, though this is liable to change as none of these with the exception of the Ahar complex have been the study of major regional level surveys of even the order which have attended the study of the Harappan question. With the exception of the Ganeshwara-Jodhpura complex, where there are no reports of excavations to suggest such trends, that both the Ahar and Kayatha societies are marked by considerable social differentiation most visibly noticed in the noted variance in the consumption of high quality and presumably expensive goods such as beads. Further excavations at Gilund in particular have revealed considerable architecture which the excavators suggest is not domestic in addition to a circumvallation / fortification which appears to have demarcated certain areas of the site from others. The Ganeshwara – Jodhpura complex seems to have not demonstrated organisation of resources and public spaces along such lines and Rizvi's effort to characterize them as community based groups specialists who exploit a resource specific niche in a larger economy seems fair and apposite.

In the Ganga-Vindhya region we are arguably seeing processes which answer to and represent a different order of social processes. Here it appears on current evidence that in the Belan and Ganga complexes we do not have complexity of the order of manifest differences in the consumption of exotic goods and these may indeed represent mid Holocene processes. Even in the Belan valley complex however we only have evidence of the production of a range of wares, including the early burnished varieties as significant markers of craft production. Settlements are small and tend to cluster in the valleys of small streams suggesting farming, foraging and hunting societies of a small order of population which are presently mainly interacting only in these small sectors. The issue of

cultural contexts and integration outside of these zones remains an interpretative challenge as the two main clusters are separated by at least 75 to 80 kilometres. It would appear however that the known small distribution of sites in the entire region between the Belan valley complex and that of the Kaimur foothills, which ranges between 1 to 2 sites in each district may be an important demonstration of how there are further sites which need to be explored for the region and may reveal a larger and more continuous distribution than what we seem to have documented at present.

The complex of the Chirand group, referred to as that of the Bihar-Ganga complex and the Kaimur foothills seem to suggest the far clearer emergence of a regional society with distinctive practices of organisation into domestic or household units, seemingly present in the form of informal rammed mud and wattle and daub architecture. The sites on the Ganga appear to have been characterized by somewhat different trajectories and are marked by the documented extensive exploitation of aquatic fauna and at the site of Chirand by a massive industry of artefacts produced on bone, in sharp contrast to other regions where short blade lithics were an important part of the assemblage. A similar sort of record seems to have been evidenced at Chechar-Kutubpur and at Oriup and some of two of these sites – Oriup and Chirand seem to have provided the evidence for the earliest terracotta's in the region. The production of elaborately decorated and finely slipped tableware shapes in the black slipped ware at Lahuradewa and Sohgaura alongside indicators of long distance trade in ceramics which are thought to have been markers of long-distance trade.

In summary then this discussion has highlighted the diversity of social and what appear to be a spectrum of political formations which seem to emerge over the course of the third millennium BCE. The difficulties which the modelling of the political formations of the most massive of these phenomena represents the problems that face Indian archaeology and point perhaps to a need to regionalize the methods of analysis and focus them upon the manner in which the material record speaks rather than continue to focus them on criteria which speak in a universal language of social evolutionism. Even in the face of what appear to be societies of completely different scales of organisation and settlement, the region of North India displays in this period the growth and elaboration of distinct regional and cultural complexes in a number of discrete regions. Each of these probably is defined by aspects of growth and change which are local and specific to its own context. Yet, it is evident that the massive and integrative forces which are represented in the Mature Harappan phenomenon reached out and also implicated cultures which remained 'beyond the pale' and continued to articulate their identities in definitively different ways. The elements of a shared

culture are also vaguely seen in the emergence of shared crops and a complex web of exchanges and assimilations of ideas about food and dietary cultures.

With reference to the problems which are faced in terming even parts of the Mature Harappan world as Early states, it is perhaps wise to desist from terming the mosaic of other cultures we have described above as 'chiefdoms' or as any other prescriptive form. This is apposite and parsimonious because to attempt such a manner of characterization on the examination of the material culture we would require far closer studies of each of these complexes whose very basics in terms of settlement distributions, hierarchies, organisation of settlements and even social and technological aspects of material culture are still not as well understood as they could be. The discussion here has attempted to illustrate what can be known: those whilst major developments and a massive integration era occur in the east a number of regional complexes do emerge in other areas and are distinctly visible in the archaeological record. The scale and the limits of these are still being understood and it is in a picture of such synchronous developments and an appreciation of their multiple trajectories that we can perhaps begin to form an understanding and modelling of these processes.

VII. The Transformations of the Early Second Millennium BCE: The western complex and Madhya Pradesh

In all the debates over the aftermath of the Indus valley Civilization, despite the massive bias towards migrations and invasions, the role of settlement distributions has played a very small part amongst the battery of evidential materials usually summoned. The main and structuring pieces of evidence have revolved around the manner in which early evaluations stressed destruction, collapse and the coming and spread of new cultural complexes. It is not necessary here to dismantle once again the nature of the edifice built on 'circumstantial grounds' and the limited capacity any of the many and various theories of invasion have had. Rather, the current discussion shall attempt to foreground the manner in which efforts to re-evaluate the set of processes at work have structured their discussions and the manner in which these have been phrased.

It is clear that at some point in the period 2000-1800 BCE there is a disruption in networks and complexes which were thriving and active over the third millennium BCE. This is marked by a clear contraction and apparent collapse in many urban complexes of the Mature Harappan phase and is marked by a set of major ruptures in settlement patterns. The most obvious of these lies along the course of the Ghaggar and is marked by a sharp decrease of settlements in the region. This appears

to have been co-related with a set of processes which lead to a large expansion in the gross number of sites of what has been referred to as the ‘Post-Urban Harappan phase’ which appear to have a massive concentration in Haryana, and significant distributions in Punjab and North-Western Uttar Pradesh. Surface surveys at Harappa in the early 1990’s have now documented that while there are clear disjunctures and breaks in terms of the networks the site is implicated in, the total area occupied in this late period continues to have been large and may be estimated to be of the order of circa 100 Hectares in all. While estimates for size are not available for the major sites in the region of Haryana and Punjab it is noticeable that there is large scale and frequent evidence of craft productions, especially in faience and it may be entirely possible and it appears even to be plausible that a number of sites in this complex too sustained large populations in at least the first half of this period. The lack of a detailed report from any of the number of sites which have been excavated in this area plagues any detailed consideration of the evidence and further the distributions, while quite extensively subjected to explorations suffer from a documentation which is imprecise in recording their exact locations and thus makes it difficult to revisit them until more accurate information is generated.

Understanding the Late and Post-Urban Harappan societies

In recent years, a number of arguments and trends seemed to have emerged out of the engagement with this ‘Late Harappan’ complex. The first and arguably most fertile of these has been the impossibility of constraining what appear to be a number of regional complexes within what has admittedly been only a stratigraphic concept of the Late Harappan. In the early part of this period, c. 1900 through 1400 BCE there appear to have been a number of varied cultural groups as identified on the basis of variant ceramic assemblages which again seem to share an overlapping of some forms but are distinguished most visibly by variant decorational regimes, principally in terms of black paintings on red wares. Two groups appear to have been most clearly demarcated, one of which is the Bara tradition (which is controversial in its dating and may have much earlier roots as well) and the other complex is that known from the excavated site of Hulas[72], in district Saharanpur. In addition the excavations at the site of Siswal suggested that some form of the ceramic assemblages which defined the Early Harappan context at that location continued throughout the Harappan phase and in this later period are said to constitute a distinctive group known as the ‘degenerate Siswal’ tradition. This complex is known to have been described by some form of a regional distribution and suggests a case similar to Bara in terms of a long chronology and a distinct if ill recognised complex in this later phase. Outside of this area we know of the existence of two clusters

[72] Dikshit, KN, (1981), The excavations at Hulas and further exploration of the upper Ganga-Yamuna Doab. *Man and Environment*. 5: 70-6.

of the Cemetery H phase culture in the Indus plains and connections of those groups with the sites in Haryana and Punjab is documented as well.

Further questions have been raised about the manner in which archaeological cultures have been recognized in the region, focussing attention upon the manner in which the area had traditionally been considered as a peripheral zone of the Harappan civilization. A series of evidences which have largely been in the form of spectacular and massive chance finds have served to change the notions of the cultural evolution in the area. The first of these relates to a pair of massive jewellery hoards, one in documented Early Harappan contexts at Kunal and the other at what was understood to have been in disturbed 'Late Harappan' contexts at the site of Mandi. It is important to stress that the hoard at Mandi, particularly in terms of its gold content was by far the largest Hoard on record in the area under study, including those from all sites of the Mature Harappan context. Drawing upon these, and the known existence of major Harappan and Late Harappan complexes in Western Uttar Pradesh, questions have been raised about the extents of the distribution of these cultures in this area. Chakrabarti has recently surveyed and documented a set of ceramic assemblages in the region and has discussed the issues at stake. As he points out without a major reinvestigation we are on thin and comparative grounds when assigning these complexes currently known on distinctive but ill-defined and incomparable ceramic assemblages to any sort of chronological framework. A major thrust of Chakrabarti's arguments have involved the consideration that the known Mature Harappan phase sites of Alamgirpur and Gulistanpur can no longer be considered as mere 'easterly outposts' and that they must lie within a larger regional distribution, something his surveys have done more than any other to document.

Until we have the complete publication and even renewed and detailed excavation of more sites in this region it has become apparent that attempting to address the complexity of settlement patterns and delineating the cultural histories as well as distributions of the major complexes in the Haryana and Punjab region shall be extremely difficult if not impossible. There are it appears distinct formations in the region from the fourth millennium on and as many excavations have demonstrated, there may be parallel traditions, like the Bara which run concurrently through the integration era of the Mature Harappan phase. It is the subsequent period and the one currently under discussion where these trends become most vital and the discussion shall now move to close with what can be ascertained from a consideration of them.

If we step outside all the paradigms of migrating refugees and those of decline and collapse it is unequivocally clear that the regions of Punjab and Haryana see a major expansion in settlement in what has been termed the post-urban phase. It is extremely unfortunate that we neither have site

size estimates, nor any record of distributions which is accurate enough to allow us to model and hypothesize about the processes at play. Nonetheless the gross trend is massive and is summarized in the table below.

Table 4 Pre, Early, Mature and Late Harappan site counts for the states of Punjab and Haryana

	Early Harappan	Mature Harappan	Late Harappan
Haryana	105 ('Pre-Harappan'[73]) + 22	88	368
Punjab	26	37	142
	153	125	510

Despite the rise of quaternary studies and geoarchaeological investigation it is almost alarming that rather than there is still no major interdisciplinary study which could identify the processes and constrain the periods during which a major realignment of drainages which were vital to these region occurred. That one such major project had been launched and involved more than two full seasons of fieldwork but saw no publications is also a matter of considerable regret.[74] It is an extreme manifestation of the varying dates which have been suggested for the climatic transformations that affected the area that the archaeological distributions along the Ghaggar remain the best guide to the process. It appears from present evidence that this transformation can be placed to circa 2000 – 1700 BCE and this may have been one major reason, amongst many others, for the collapse and transformation of the previous cultural dispensation of the larger region.

As Table 4 demonstrates there has been no consideration of the region which has accounted for the most demonstrable social transformation witnessed in the region. This is a transformation which involves a major demographic increase and rise in the total number of settlements as well. If the case is, as it appears, at present, to involve a cluster of a number of closely juxtaposed but distinct culture this may be a pointer to a significantly different characterization of the period and its societies. While at present there is no settlement size data, the Post-Urban phase is known to be

[73] There is a major problem in the distinctions that various surveyors have made between Pre-Harappan and Early Harappan assemblages and these inter-observer variability has considerably impacted the manner in which we can structure the data. The decrease in the number of sites at the Mature Harappan phase is probably another artifact of the manner in which surveys have reported data and it can be presumed that

[74] The Indo-French Archaeological mission is known to have documented and established the major geoarchaeological parameters which affected the Chautang as well as smaller drainages such as the Kantali. Additionally it also raised questions of whether canals had been constructed by these societies and provided some prilimary considerations about the manner in which agriculture and settlements were organized around water resources. Geological samples are described as having been collected and a number of archaeological sites are known to have been subjected to trial excavations. *IAR 1983-84*, p.95-98

widespread at sites like Banawali and Rakhigarhi and craft production activities are known to continue, be elaborated and to prosper. We have little idea of how the structure of the settlement hierarchy is impacted upon but the large number of small sites which have been most noted may relate even to processes of general expansion rather than those of devolution and decline. It must be stressed that the pictures of ruralisation and decline have largely been based on anecdotal consideration of settlement distributions and the weight of the many layered discourses which ways most heavily upon any imaging of the period. They are not based on any study of how large urban sites relate to their hinterland in the previous phase and thus these characterizations are problematic in the manner in which they relate to previous occupations of the region.

The manner in which much of the foregoing discussion has been framed is exceedingly tentative and this is a deliberate strategy as it is an attempt to highlight the manner in which we have very few securely established chronological and cultural pegs upon which to base our analyses. The region is witness to a massive cultural transformation here and the discussion above has attempted to highlight how in the absence of the delineation of cultural groups and a clear publication of the terms on which they have been defined there is little prospect of there being any rapid resolution of these complex issues. Another aspect which must be raised here is the alarming lack of radiocarbon sequences from many of the excavations, many of which were multi-season projects, which has denied archaeological scholarship many windows into establishing the basic parameter of chronology into these complexes. Until these matters are resolved, any attempt to characterize this period and even previous ones in the region shall have to be extremely tentative.

The transformations in Eastern Rajasthan

In other region such as those of South-East Rajasthan, the transformations witnessed in this period by the Ganeshwara-Jodhpura and the Ahar complexes too are not very well understood and suffer similar and considerable problems which relate to the chronology of these complexes and the manner in which this relates to the known distribution of these sites. V.N. Misra radiocarbon programme at Balathal seems to suggest that the site is deserted c. 1830 BCE and the general indications from other sites of the culture also suggest a process which seems to concur with a reorganisation of the complex in this general period. There is a general understanding that while this cultural complex clearly gives way and disappears by this period, settlement in the general area, which also comes to include settlements of the Ganeshwara-Jodhpura area come to continue and be represented by a plain Black and Red Ware which neither has the painting traditions nor the bowl forms distinctive of the Ahar complex. This ware has not been sufficiently described in any publication, not is it clear on what bases such sites are reported even in the few cases which they are. The general settlement pattern of Rajasthan in this period from 1800 – 1000 BCE thus

constitutes a major problem and a discontinuity. There is an additional problematic in the Ganeshwara-Jodhpura zone and in regions to the north of it which relates to the manner in which the Ochre Colored Potteries have been described. It appears that this generic label for completely eroded red wares has served to contribute to the confusion which exists and without a publication of the forms as known from the excavations at Noh, near Bharatpur it does not appear that these questions can even be addressed in any significant way. It would appear that there is a major contraction in settlements and that populations may have undergone serious reversals if the picture as presented by the evidence currently is a true representation of the regional archaeological record. However, it must be stressed, that equally, this may be a massive discontinuity in the known and recognized culture-historical categories and a very different picture may eventually arise from renewed fieldwork in the region.

VIII. The emergence of regional cultures: the Ganga basin over the course of the second millennium BCE

If the previous discussion of the Ganga Basin and its cultural units had to premised upon shaky chronological data and what appeared to be discrete distributions with complex and suggestive rather than substantiated connections, the scenario at the very beginning of the second millennium BCE could not be any further from that. In the entire region from the Lahuradewa in the North to the Belan valley and in much wider expanse along the east-west axis a large and complex distribution of sites comes into being. These sites are marked by many cultural complexities, which involve new traditions of ceramics which include the emergence of many new forms; we witness an elaboration of crafts and there appears to have been a major production and consumption network of metals, both copper and iron which is set into place. The major problem again here appears to have been one of parsing out meaningful culture-historical units and this stems from a number of shared elements in the material culture which shall be discussed below. Further, the consideration of these societies has arguably been chained to the culture-historical categories of 'Chalcolithic' and portmanteau improvisations such as Neolithic-Chalcolithic rather than any which have attempted to evaluate the trends and processes which have been manifest in the record itself. Above all, in the writing of ancient Indian history, the weight of the meta-narrative and its insistence upon the fact that any major settlement and the rise of regional societies in the region emerge only with the early historic and developments linked to it has meant that these societies, and their testimony has always slipped through the cracks of its grand narration.

The most striking element in the material culture of these societies appears to have been the shared ceramic assemblages which they have been represented by. There appears to be a conversant familiarity and a shared knowledge of wares and forms through which these societies chose to make their vessels. Principally all these assemblages have been represented by Black and Red Wares, Black Slipped Wares and a set of Red Ware assemblages and this commonality has often been the major stumbling block for the formulation of any culture-historical taxonomy. An element of continuity is noted in the production of some Cord impressed wares, and it appears that the technique of using a cord-impressed paddle to expand and shape vessels at the leather hard stage is a tradition that persists and remains relevant even in the widespread use and adoption of many other methods of producing vessels. The main innovation in forms included the emergence of the dish-type, an archetypal form which separates these assemblages from those which define the earlier cultural period. This increasingly flat based, extremely shallow and relatively wide unrestricted vessel is a type which is of extreme importance, is produced in large quantities and is a form which perhaps represents new ideas about the consumption of foods and the ideologies of table-wares. Alongside this an older tradition of some Dish-on-Stands continues and a range of other vessel types prominently including a small bowl-on-stand which has a number of variants and is produced in a number of increasingly fine wares becomes an increasingly important element in these assemblages. There are differences and variable distributions, but the main problem has often been in constituting the main ware categories and the studies over the last two decades have repeatedly demonstrated that the three main categories of wares are simply insufficient and are perhaps too weighed down by the cultural baggage often associated with them.

This need for detailed study of each sites ceramic assemblage and the characterization of its elements on those grounds has been made most strongly by Rakesh Tewari et al, who have in recent years spoken provocatively and with just cause and have asked the questions of ‘which Black and Red wares?’ to this previously unwieldy blanket of assemblages. This thrust towards the identification of and detailed description of the variety of wares and their related types has allowed for come clarification. It is now apparent that in the period between 2500 and 500 BCE there come to follow upon each other a range of assemblages, each of varying constellations of wares. One form of distinguishing these has been the clear differentiation of forms in coarse, fine and medium of wares which exists in all three major categories. A major cultural and craft trajectory seems to exist over the course of this period in the production of increasingly fine Black and Red wares and Black Slipped Wares and accompanying this trajectory are experiments and traditions in different ways of decorating these wares.

Two examples should suffice in the demonstration of the importance of this massive change which has come about in the study of these cultures. The first relates to the excavations by Purshottam Singh at the site of Narhan in the mid 1980's where he discovered an assemblage, defined amongst a number of elements, but principally by the presence of what appeared to be a previously undocumented distinctive type of Black and Red ware bowl form which bore linear paintings in White. The case of Narhan was special, it produced more such fine tableware quality black and red wares than any other site has and these constituted up to 20 percent of the total assemblage. At the time the discovery was hailed, principally because on the grounds of radiocarbon evidence it 'proved' once again the existence of a pre-NBPW culture in the Ganga plains.

The reception of this thesis of the Narhan ware has not been as celebratory. Far from that, it is now even being revisited on account of the fact that almost every excavated site in the region which stretches from Gorakhpur to Mirzapur in the Ganga plains as well as the major distribution of sites in the Vindhyan region have all revealed some types which seem similar to the basic definitive elements of the Narhan culture. They are similar, yet they are not the same. The case of Khairadih also excavated extensively at about the same time, has provided a case where most of the forms are similar if not almost identical and there are also some Black and Red ware types similar to the Narhan ones. Yet as B.P. Singh, the excavator notes, the decorated Black slipped wares clearly predominate at this site. B.P.Singh then argues that these are all but local variation within a larger complex. More marked as a case of disagreement has been the case of Agiabir, where Purshottam Singh, despite a similar marginal presence in the total assemblage of the characteristic elements chose of designate the period as the Narhan culture. Excavations by Vibha Tripathi et al subsequently at the same site have chosen to frame this as the period of the 'Black and Red ware culture'. Thus there are still complex issues which attend the way in which we understand the basic block of assemblages, the ceramics of the region and as shall be argued further in this section their study in relation to other manifestations of the cultural record allow one to posit different cultural groups in the Ganga-Vindhya region with relative degrees of success.

One major aspect of the transformations of the period 2000 – 1800 BCE is the manner in which the old crude and refined hand-made and turn table ceramic traditions slowly go out of use and are replaced by these new assemblages. In place of the burnished red, black and gray wares are the black slipped wares and Black and red wares which tremendously improve upon the almost insignificant examples in the earlier period. It is important to stress that the red wares, as marked by storage jar types and by basin types seems to bear a general similarity and association with the preceding wares and this is borne out also with a general repertoire of decoration types, principally

in the forms of a few appliqué bands. As noted above there is also some tradition particularly in the red ware but also in an unslipped form of a black and red (as produced by firing) of the continuation of the cord impressed ware techniques which continue into this period. There has been a general problem of absolute chronologies regarding these assemblages and conventional archaeological interpretation has traditionally read back, in some degree from the NBPW period and has established chronologies from what was thought to be the secure anchor of c. 600-500 BCE.

The excavations in a region of the Ganga plains, the Lucknow area, where none of the complexes described previously for the Ganga basin had been known to exist has done more than any other excavations to reveal the massive problems that may be associated with this manner of placing and understanding archaeological cultures. It must be noted nonetheless that a pollen core from the general area, sourced from the Sanai Tal, had generally presented a record of anthropogenic activity which went much beyond the conventionally accepted date of 1000 BCE for the beginnings of settlements in the area. At Dadupar, as the excavator notes, an assemblage of some Cord Impressed wares, BSW, B&RW and the associated Red Wares which would have been conventionally dated to a pre-NBP period, i.e. not into the second millennium BCE. But as a battery of radiocarbon dates have established the site was certainly settled by the period of 1700-1600 BCE and probably would go back further. The importance of this documentation for the middle Ganga plains cannot be stressed and it has opened up new windows in the manner in which these assemblages need to be considered. Tewari's focus on documenting the diagnostic types, not only from the site but also from the explorations in the Sai valley has also stressed the need for surveyors and excavators to make explicit what forms are being recovered and which are being understood as early.[75] These discussions have also led Chakrabarti to suggest, admittedly on speculative grounds that the earliest period of a BSW, B&RW and RW at the site of Musanagar in Kanpur District may also have similarly early origins and it is unfortunate that there is no real documentation of such antiquity at present by any radiocarbon record of the site.

The impetus of this initial discussion was to stress the manner in which the period under consideration has been subject to a large number of revisionist studies, particularly in the course of the last two decades. There has not been any synthetic account for these cultures, arguably in a connected manner, even prior to these and the complexities suggested above do not make the task any easier. Nonetheless it shall be argued below that a number of regional complexes are evident and manifest and that they document a pivotal moment of regionalization and of documented forms of complex interaction which have hitherto not been accounted for.

[75] Rakesh Tewari et al, 'Dadupur Excavations 1999-2000-2001, District Lucknow, Uttar Pradesh: A Preliminary Report', *Pragdhara* 12, 2001-2002, pp.99-116

The Kakoria – Koldihwa complex or the Vindhyan Chalcolithic

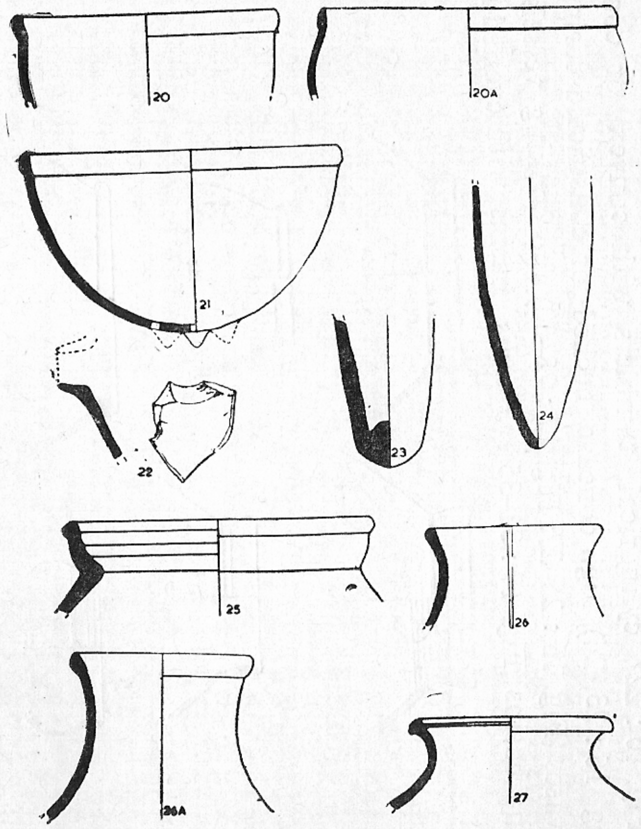
One cultural group that emerges with distinctiveness and clarity that is unquestionable is that which has been previously referred to by the names of the Vindhyan Chalcolithic or the Kakoria-Koldihwa group which are the two principal type sites from which this complex is known. The culture has been extensively documented by the excavations and survey projects of the Allahabad University as well as those by the Banaras Hindu University. The excavations at the site of Koldihwa have posited a clear relationship through a successive series of stages from the 'Vindhyan Neolithic' through to this period. The ceramics at the site for this stage are marked by a B&RW of generally medium to coarse fabric, a Black slipped gray ware and an associated plain gray ware and a diverse range of variations in the surface treatments of a truly distinctive and definitive class of red wares. The site of Kakoria and its discovery were part of the initial discoveries of the Vindhyan Megalithic complex and 12 megaliths were excavated at the site, yielding ceramics identical to those which have been described above. The Kakoria-Koldihwa complex is thus marked by a distinctive ceramic assemblage and complex of monumental memorialisation of the dead both of which allow for a range of further discussions of its nature and complexity.

A general clarification is required here about the manner in which megaliths have conventionally been understood in Indian archaeology. Of the many tropes which have structured their interpretation the most dominant are those which imbue these complexes and practices with a uniform primitivism and posit a world of almost uniform cultural groups which have not been understood as representing societies of any great economic or political complexity. Other major tropes have been the manner in which due to the early discoveries of the 1960's and 1970's these were thought to have been uniformly related to a B&RW culture and tied down to various tortuous manipulations of a diffusionary logic. Yet another structuring idea related to the manner in which in many areas where these monuments were first noticed, no habitation sites were found, owing primarily to the jeep methods of survey. Thus was built up the idea of megalithic peoples who were migratory, rode horses and ephemeral in the landscape in all forms but their graves. In these many ways, and reified in other contributory ways a pathology of the megalithic people has bedevilled their consideration in a number of ways. The tremendous irony of this construction of these varied and diverse regional societies is that in the context of Indian archaeology, which has had tremendous anxieties and difficulties in searching out markers of socio-political complexity, the megalithic monuments have provided in many regions arguably the clearest and most dramatic indicators of these processes. It is here argued as has been done elsewhere, that the megalithic monuments constitute an eloquent and complex record of the emergence of various forms of socio-

political and ideological systems. The megaliths provide spaces where upon the act of commemorating the dead, these societies act out discourses about power, its production and reproduction. It is apparent that these monuments were not constructed for everyone in these societies and that they were constructed often at the cost of the investment of much labour often of the order of many work-days. It is also clear that megalithic styles, which have been described in often voluminous taxonomies of form, are also elements in the forging of a regional society. In almost every known megalithic regional complex, there are sites which are far larger and seem to have constituted sites of special symbolic value and resonance. While often undocumented it appears from recent work in Vidarbha and Karnataka that smaller cemetery complexes, often if not invariably associate with habitation sites across the settlement hierarchy and appear to relate to closely in this bound relationship of habitation and cemetery sites.

Paradoxically, the sustained work of the Allahabad University has created an impressive characterization of the distribution of this complex in many zones, primarily in the valleys of the Belan and its tributaries. However this complex is known to have distributions far to the East, into the Robertsganj – Chandauli – Mirzapur region as well as to the West, up till the valley of the Paisuni. The distribution is marked by a number of habitation sites most often located on the pediment slopes of the residual hills of the Vindhyan system or on riverbank contexts of the small river valleys which dissect and define the region. A general settlement hierarchy and variation in the size of the number of megalithic monuments in the associated cemetery sites has also been documented. It is notable that while the sites of the Koraon and Jungle Mahal region are best understood in terms of a local complex some of the other outlying sites are suggestive of further such distributions.

The ceramics mark a number of cultural complexities which are challenging and difficult to interpret and provide a rich texture to the material culture of this society. The black and red wares of the complex are known to be of both the medium and coarse varieties and are known in a range of forms, mainly comprising a range of small and medium bowl types, some dish types, basins, pedestelled cups / bowl-on-stands, funnel-shaped lids and vases with some sherds displaying a marked treatment of polishing / burnishing. The black slipped and gray wares are noted to have been essentially similar wares, including many common types and differentiated only by the application a fine slip which often is noted as 'comparing well with the NBPW in brilliance'. The forms in these ware seem to have been included a greater diversity of bowl types, pedestelled bowls, a distinctive convex sided dish, beakers, funnel-shaped lids and a small vase type. In these forms and indeed even in the presence of the fine BSW and GW assemblage it is clear that this culture displays a group of ceramics which both in form and apparently in the styles and techniques



16. Chalcolithic red ware types, Koldihwa (1 : 5.5).

Figure 8 After Pal 1984

of production is similar to that of other contemporaneous cultures to the north and east of the Mirzapur and Belan Valley region. In addition a distinctive thick ware, produced from a medium to coarse paste and apparently fired plain and witnessed in both oxidised and reduced, i.e. gray and red forms was also noted. This ware is distinctive and not as widespread in its distribution outside the Kakoria-Koldihwa complex and is recognizable especially on account of a ripple-like or channel-like design of raised bands. No known diagnostic sherds of this ware are known from any site, but its distribution is regular and it is surmised to have been of a distinctive storage jar like vessel.

The set of red wares are distinctive and are characterised by a range of light slips which generally vary from a red to an orange-red in colour in addition to those which have been completely eroded to reveal the core of the vessel. It is important to highlight the fact that there are a number of forms which this ware category shares with contemporaneous cultures and these principally include basin and more importantly storage jar types. A variety of bowl forms, though not including the pedestelled bowl (thus emphasizing its importance in the class of a tableware), footed and perforated vessels, pear shaped vases, high concave-necked vases and large and medium sized

storage jars with carinated necks are known major forms. Additionally there are a small set of handi forms, some of which occasionally bear casual decoration in a black pigment over their light red slip. Some sherds in broadly these vessel classes have been known to bear cord-impressions, implying that the technique of shaping them involved the use of a paddle and stick, the former of which may have been wound with cords. This feature if often obliterated in what appear to be most parts of the vessel by the subsequent slipping and occasional partial polishing of the surface and thus may have been an important technique of the manner in which the vessels were shaped.

The red wares of the Kakoria – Koldihwa complex are however made distinctive by a set of ceramic vessel forms which have no other known distribution in the region and are unique to them in the North Indian context. These have included the 'button-based goblet', the 'funnel-shaped lid' forms and a type described as the 'vase with conical profile'. The identification of the second and third of these forms are interesting and challenging as they do appear to parallel forms which are known from other diverse and otherwise seemingly unrelated megalithic contexts. The idea of the button based-goblet which is a typical Harappan form is thus an identification which seeks to make connections which would explain the discontents of the meta-narrative. This identification had often been questioned and apparently is equally and probably more easily understood as a lid form.[76] These types have been described prominently from the complex known in as disparate a location as the Brahmagiri complex as well as in somewhat different forms from Vidarbha and it has hard to understand either these connections or any other mechanisms of their distribution until we can come to a better understanding and contextual description of these types. They do appear to have served special functions and are known from burial and habitation contexts.

It has become apparent from the known distribution of circa 80 sites, for more than half of which good geo-coordinate information and for many site size estimates as well are available that there is a dense clustering of these sites in the an area of circa 80x150 km in a region which is set in the heart of the Vindhyan water divide. Here dissecting and draining from the residual hills there are a number of small and large tributaries which flow both directly to the Yamuna and the Ganga, like the Paisuni, Chandraprabha and the Karamnasa respectively and others like the Adwa which flow into the Belan. This is an area marked by sharp contracts in topography with residual hills often rising up to 300 m above the neighbouring plains and as one moves further south these hills change to a tableland which rises continuously and is plateau-like. It is in this dense distribution that it is evident that there emerge known and considerable complexes of the Kakoria – Koldihwa complex in the Belan and Adwa valleys in particular alongside another dense complex in the Chandraprabha valley.

[76] This point has been made a number of times, including by scholars at the University of Allahabad. The early commentators were J.N.Pal, B.B. Lal, Most recently by Rakesh Tewari upon the evidence from Malhar.

Smaller clusters are known along the other rivers mentioned and the site Ban Imliya Behera, apparently is one of the largest and most extensive stretches of megalithic monuments and lies roughly in between these. Additionally there are a number of smaller clusters at great distance from these known sites and these include the a small cluster in Banda district as well another small cluster in Sidhi district, Madhya Pradesh. These outlying areas have not been subjected to as many seasons nor as extensive an investigation and it appears that this complex may actually be defined in a number of localities and small areas and may extend further.

Perhaps the most striking aspect of the distribution of the Kakoria – Koldihwa complex is that its distribution extends further north, to the banks of the Ganga and beyond and this distribution is significant and cannot be stressed enough. A few sites like Onaur and Unchadih had been published in the very earliest phases of exploration, in fact even before the megalithic complexes had been discovered. Since then a number of sites, some in Allahabad district, as well as whole cluster of about 25 sites are known in the region of Pratapgarh district. As shall be argued and demonstrated in the subsequent chapter it is this complex which is at the base of the sites of Kausambi and Sringaverapura and thus provides one of the most significant and widespread complexes of the middle Ganga- Vindhya region. The presence of these sites in the alluvial plains is something which is striking and suggests dimensions of complexity regarding the mortuary behaviour which we currently do not understand, especially as there is simply no stone available in these regions to construct any memorials. If there are cemetery sites of any sort associated with these sites they have hitherto not been described and an excavation of one these sites is an urgent need to clarify the relationship and details of this locality of the Kakoria – Koldihwa complex.

The recently excavated site of Malhar, as well as that of Latif Shah, present complexities of a different order when we consider them in relation to this complex. The excavations at these sites as well as at Raja Nala ka Tila, further to the south in the Sonabhadra area have been crucial to the new and revised understanding of the Iron Age in the Ganga basin as they have provided definitive evidence of Iron production from resources in this region and have conclusively placed the beginnings of these developments within the first half of the second millennium BCE, i.e. circa 1700 – 1500 BCE. Iron production was evidenced at the site not only in terms of a furnace, but also in terms of the haematite material which the metal was extracted from but also in terms of massive quantities of slag and broken pieces of tuyures and terracotta pipes. The excavations at Malhar, conducted in 1998-99 are particularly significant as they have also met with quickly produced and lengthy reports and present a chronology very similar to that which can be assumed for the Kakoria

– Koldihwa complex[77]. Additionally both sites are within a 15 km radius of the site of Kakoria and suggest close linkages with the complex. It is important and salutary to note that the excavators of this site have chosen to describe the ceramic assemblages and other cultural materials in detail rather than tie them down to any previously documented cultural complex. Nonetheless, the excavations and surveys of Tewari et al have documented a series of Iron production sites which share an assemblage of BSW, B&RW and RW with other neighbouring sites in the higher reaches of the valley of the Karamnasa and these merit discussion for the manner in which they impact upon what had been described as the Kakoria – Koldihwa complex.

The earliest phase at Malhar seems to have been one which was marked by a 'late Vindhyan Neolithic' ceramic phase and is marked by crude B&RW and RW and some BW, most of which occurs in a plain or eroded form and many of which bear Cord impressions but some slipping technologies are apparent on some sherds. To the great credit of the excavators, in the second report from Malhar, they have presented lot-wise trends from certain trenches of certain periods which allow for a quantitative assessment of the ceramic assemblage. It is apparent that this early Black and Red ware complex is something which had not either been described as fully from early excavations, and that it clearly presents types such as a form of a dish-on-stand as well. Additionally displays a small trend towards both paintings and incised decorations which seem to appear to have occurred at a presumed rate of one vessel per trench if the trends are a good representation of the record. The emergence of BSW and B&RW in the next period of finer varieties is marked. Notably the Red Wares do not include the types which are most unique to the megalithic complexes described above and the fact that the small sample of excavated megaliths from the Kakoria – Koldihwa complex are said to have been characterized by the absence of Iron in the grave goods suggests that there are difficulties in making a direct and basic correlation. Nonetheless, the proximity and near interdigitization of the complexes of these sites and a broad contemporaneousness suggests clearly that the people of these Iron producing sites along the Karamnasa knew of and there is a great probability were affiliated and connected with the culture that has been called the Kakoria – Koldihwa complex. There appears to be other categories of overlap which include broadly similar bead types, for which there is early production evidence at Koldihwa and additionally it appears that they may share much in terms of how they occupied and used the landscape.

A major element in the broad patterns of cultural developments in the Vindhyan region suggests that the small river valleys and the sediments that they contain both as alluvial fill and colluvial

[77] The reports for Malhar were published in *Pragdhara* volumes 10 and 14. Volume 14 reads veritably like a report for the site as it includes the results of the study of macroboatnical and faunal remains as well as a fuller description of ceramics as well as a technical characterization of the Iron artifacts.

remnants and pediment slopes formed a particularly suited niche to their forms of agriculture. Malhar has notably yielded amidst later sediments discrete samples of older charcoals and carbonized grain fragments which put land-use in the local area back to a date of the fourth millennium BCE. While much further work shall be required to document the exact manner in how this was so, it appears that these ecological niches afforded considerable support for these early agricultural regimes which by the dawn of the Iron Age at Malhar had come to include not only rice, which has a longer history in the region but also wheat, barley, pulses, millets as well as other crops.

One of the most significant demonstrations of the Malhar evidence is the clear and quantified reportage and analysis of the faunal material. This has clarified much of the confusion which has surrounded the antiquity and nature of such practices in the area, even while the evidence from period I is small and not too voluminous. During the earliest period there is also a considerable record of the production of bone tools and of massive amounts of wastage and debitage from this and the subsequent period as well. It is now clear that by the coming of the Iron Age a substantial amount of the energy devoted to subsistence had come to focus around cattle and in particular the buffalo which were kept at the site. Reared populations appear to have had been used for traction and labour and additionally a differential kill rate suggests that while some individuals lived to beyond 4 years many were killed at about the age of a year and suggest that the animals also provided a regular and valued source of food. Joglekar further clarifies that it does not appear through the site that any major population of sheep or goat provided any major component, although he also notes that seemingly a small nucleus was kept throughout at the site. Venison, of a number of deer species is a regular and constant feature and seems to have been a valued foodstuff.

It is perhaps not wise to generalize across such a diverse and multiple complex distributions such as that described above on the basis of the Malhar evidence, but it does appear likely that similar patterns of the organisation of agro-pastoral life may have been in evidence over this larger area. This is further suggested by the dense clustering of sites in some of the river valleys, perhaps best represented by the Adwa, where the locations of sites in the valleys suggest a distribution amongst fields, and large plateaus and tablelands as well as the residual hills probably afforded good pasture grounds. This is also a region which has a major distribution of rock art, and whilst many of the rock art traditions may have been earlier, a number of them may relate to the present period. The sites in the Ganga plains, especially those in the Pratapgarh district have also yielded preliminary evidence of a complex broad cropping regime similar to that of Malhar and we can presume a complex faunal exploitation strategy as well. The proximity and association of many of these sites with the oxbow

and meander cut-off lakes in the region suggest dimensions which involved the use of aquatic flora and fauna as well and future investigations may documented just how important these were.

The Kakoria – Koldihwa complex or the Vindhyan Chalcolithic / Iron Age complex is one which is proving harder and harder to provide an adequate name for. Yet, it is clear that only a sustained radiocarbon program in both the Vindhyan and the Ganga regions shall be able to delimit its chronology and allow us to come to an understanding of the manner in which this complex is subject to internal processes of change, transformation and expansion. At this time it is possible to characterize the societies of this period as organised into distinct regional groups which appear to be defined by geographically specific bounded areas. A larger community is also perhaps knit through the shared material culture as well as the special symbolic associations which may have surrounded larger sites such as Ban Imliya Behera. The building of the cairn circles and the cist within circles are probably the best representation of the form of hierarchies which had structured and controlled lifeways in these complexes. Grave goods and the size and monumentality of these graves themselves have been known to vary quite considerably and there appears to have been a general spatial or chronological distinction between these two general types. It is still difficult to characterize these complexes but is apparent that in terms of regional identity and processes of socio-political complexity the Kakoria – Koldihwa complex certainly comes to constitute a regional culture which is marked by the advancement and manifestation of these processes.

The Kaimur and Bihar 'Chalcolithics'

The Kaimur group of sites as marked by Senuwar is notably marked by different trajectories. The number of sites seem to grow at only a somewhat slow rate and come to number around 10 to 15 in total. It is clear here that there are continuities as well as some desertions from the previous period. By and large the culture seems to be approaching a complex which is increasingly similar to that in the plains and known from sites along the Ganga such as Chirand and Chechar Kutubpur. Further east the site of Taradih too seems to suggest trends in terms of ceramic assemblages which seemingly bring these sites closer together and elide away the somewhat distinctive traits of the first periods at these sites. Notably, while these sites are in the foothills, there are no reported megalithic sites in this belt of the Kaimur or they have not been reported as yet.

The extended program of ceramic study and detailed descriptions provided from Senuwar allow for a discussion of the manner in which the ceramic assemblage compares with that of the Kakoria –

Koldihwa complex. It is readily apparent that there can be discerned a series of wares and that the transition from the older 'Neolithic' complex to the new emergent wares is a far smoother and more complex transition than had been hitherto resolved. This Burnished gray wares and Burnished black wares with their own forms of painted decorations in red ochre and incised decorations seem to continue for at least some time through what is called the 'Neolithic-Chalcolithic' complex. It is clear that there appears a form of decorations in a range of Black slipped ware bowls which appear to be numerous and diverse enough to have been produced at the site itself. It further appears that the site of Senuwar exhibits connections and linkages which are represented in the ceramic record and point to two different areas of origin. The first of these is something that here is believed to be typical of the Kakoria – Koldihwa complex and is represented by a single published sherd of the rippled – channelled ware.[78] It is of course, important to note the provisional nature of this association as many other forms in the Red Ware are similar and indeed even identical. More clear are the few fragmentary but distinctly preserved sherds of a Black painted Red Ware which the excavator himself has attributed to the Malwa culture.

Further complexities of trade and the many materials which are implicated in it are represented in the form of Copper utensils and artefacts which present an episodic and discrete manifestation. In the rather difficult scheme that has been arrived at a cache in the Neolithic-Chalcolithic levels makes the overall Copper artefact count here more numerous than that in the subsequent Chalcolithic period. In general it is important to note that there has been no site discovered yet in the Ganga basin or the Kaimur and Vindhyan regions which has yielded evidence of copper smelting in these early periods. Characterizations of the copper artefacts and from elsewhere have suggested on the basis of sulphide impurities that the Rakha mines may have been a probable source and it is possible that a complex in that region may have been the source of these artefacts. The known distribution of copper resources in this area however, especially as collated by Prabhakar Upadhaya suggests that there may be a much wider range of resources, often implicated in areas on known complexes of settlements and that these too may have been utilized by the ancient people.[79] The early bead production activities at Senuwar are known to multiply and intensify during this period and whilst drilling technologies are not evidenced in the forms of remains of drill bits it appears that this craft tradition diversified further. The most impressive evidence of this is the largest and earliest collection of faience beads at the site which appear to have possibly been even produced at the site. There is evidence of a large mortar and of furnaces but these may not have been linked in any clear

[78] Singh, Birendra Pratap (Ed). *Early Farming Communities of the Kaimur*. (Jaipur: Publication Scheme, 2004) Volume 1.Page 127, sherd no 112

[79] Prabhakar Upadhaya, Ancient cultures of the middle ganga plain in their mineral correlation, *Pragdhara* 16, 133-155.

fashion. Nonetheless these 30 odd faience beads alongside further evidence of the manufacture of beads in silicas do suggest that Senuwar, which is located in the midst of a major distribution of agates, chalcedonies and cherts may have been a major regional production centre for these artefacts.[80]

The chronology at Senuwar is important as a last matter in which a discussion on the region needs to be made. The early presence of Iron and a transitional phase in the ceramic assemblages have led the excavator to suggest a chronology of 'Neolithic- Chalcolithic' (1950-1300 BCE) and 'Chalcolithic' (1350 – 700 BCE) for these periods. It is important to note that the B&RW of the Chalcolithic period is defined by finer varieties of principally the same types with a marked retreat of the dish-on-stand. Further it appears that the Black Slipped ware frequencies and decorations rise and then decline as we approach the NBPW period.

The Sarayupar distribution

The Complex which hitherto had been clearly marked only by the sites of Lahuradewa and Sohgaura, can now be located amongst a proliferation of such sites in the entire belt from Gonda and Faizabad through to the areas of Ballia and Deoria. While this is again based in qualitative and anecdotal reportage it appears that these sites in the region to the North of the Ganga and the East of the Sarayu seem to be defined by a greater preponderance and an earlier realization of fine varieties of both the Black and Red ware and the Black Slipped Ware. Here the problem of defining a cultural complex has been intensely problematic especially as when the relative percentages of these wares and the manner in which sites relate to the pervious complex of the Cord impressed wares seems to vary quite distinctively in terms of the proportions and estimates of variability which have been presented. For example the sites in the Basti area, of Lahuradewa, Gulrihva Ghat and Gerar certainly seem to present an early tradition of fine B&RW and BSW which are both painted in a white pigment.[81] Khairadih and Sohgaura on the other hand, somewhat to the south of this complex seem to be areas where the focus was on increasingly finer varieties of the Black Slipped wares, including those which were painted in elaborate concentric designs / what can be termed a continuous convoluted spiral like design. It is important to highlight the refined nature of this decorative tradition and the manner in which these decorative traditions seem to have been implemented not over, but just under, in what may have been a series of slips. The white pigment itself is often quite markedly viscous and congealed as a substance while being applied in thin and delicate layers and designs. Thus it appears that there is an element by which these designs are produced in a manner

[80] Singh, Birendra Pratap (Ed). *Early Farming Communities of the Kaimur*. (Jaipur: Publication Scheme, 2004)
[81] Bhatt, S.K. . Archaeological Explorations in Basti district (U.P.), *Puratattva,No* 3, 1969-70: p.77-78.

in which they can sustain the use which these apparent tableware forms would have seen which may have involved repeated cleaning and washing.

It is important to state that other elements in the ceramic traditions in this region, especially amongst the red wares share from a common tradition such that the excavator of Khairadih has stressed that it is almost impossible to tell sherds from different sites apart.[82] This common shared base of the plain and utilitarian red wares seems to further suggest that what have sometimes been downplayed as merely local variation may indeed be records of regional traditions within this zone. It is perhaps possible that future in depth technical characterisation of the ceramics from these sites may reveal trends in how fine wares were traded within these complexes although that remains only at the level of a hypothesis for now. What is evident nonetheless is the manner in which these sites, as broadly delineated above grow and proliferate in this period, and it is now documented amply at the site of Lahuradewa that for some existing points in the landscape this period saw a massive growth in settlement size and complexity.

The Celt trade

Now that this discussion has established broadly four major cultural zones in the eastern half of the Ganga basin which clearly emerge during the course of the fourth millennium BCE it would appear apposite to raise two threads of discussion which stress the manner in which these regions and still others were implicated in documented and major networks of exchange. These networks of exchange are presented most ably by an artefact category which can be suitably used as a site to revisit the culture historical paradigms which have hitherto framed the manner in which cultures are evaluated and labelled. This is the category of the 'Neolithic celt' or the ground and polished stone axes which have been seen as significant enough of a marker to have labelled and signalled the very rise of the last and final stone age and the simultaneous emergence of agriculture. It is now clear that these complex and extremely long term processes cannot be bundled together under any circumstances. Further, it had long been presumed that the production of celts, or polished axes was a sign of the archaic and a manifestation of primitivism.

Recently, in studies which have dealt with examples both the subcontinent and have drawn upon a wealth of literature from beyond this geographical space there has been a major redressal in the way the polished axes have been considered. A major axes of study especially in England and Europe

[82] IAR 1980-81, p.69-70

has been the attempt to identify not only the variation in stone types used to produce these artefacts but also to study them with a technological precision to enable the location of the raw source materials as well as picture differing and overlapping exchange patterns if they should so exist. The evidence from the Early and Later Neolithic of England is particularly complex and as a monograph length study documents the shifting patterns of settlements and their nature across the two periods appears to be linked significantly to the manner in which axes were exchanged out of two major centres in Sussex and Cumbria.[83]

The recent re-evaluation of that picture, led by experimental studies seeking to understand the technological complexity behind their production has presented a radically different picture. Two detailed studies of these aspects have already been produced in different regions of the subcontinent and may be raised even though they lie outside the present area of concern. At both Sulabhdhipi[84] and Sanganakallu[85] there is massive evidence for the production of these tools on a large scale. It appears that these sites were inhabited by specialists who produced these tools with great expertise and managed to refine their craft of knapping extremely tough and dense stones like dolerites, epidiorites and basalts. It needs to be stressed that the knapping of these tough stones is in itself is not similar to the much easier tasks of knapping crypto-crystalline silicas as in the production of microliths. Further, the knapping of a blank into a perform is only one of the many stages which is required in the production of a celt and the subsequent stages of polishing and grinding the axe are stages which are now documented as being extremely laborious and time consuming. For example at the Sanganakallu experimental reproduction programme it was clearly established that it would take a single individual more than two days to polish and grind a single axe of she/he worked at it continuously.

Celts thus are the product of an exceptionally specialized skill set and were perhaps produced in communities and groups which soon became specialists within the region. The Hiregudda and Sanganakallu evidence in itself has been raised as an example of mass production and regional trade and the documentation of the site of Sulabhdhii seems to suggest a similar order. The consumption and use of celts in general also has a complex record as they consistently seem to document a range of off-site activities and land-use patterns (in the pattern of their discarded contexts) which regularly place their user in locations other than the habitational landscape. Experimental and ethnographic

[83] Richard Bradley and Mark Edmonds, *Interpreting the Axe Trade: Production and Exchange in Neolithic Britain* (Cambridge University Press, 1993)

[84] Pradeep K. Bahera, 'Sulabhadihi : A Neolithic Celt Manufacturing Centre in Orissa' *Puratattva*, Volume 22 (1991-92)p. 132-135

[85] BRUMM Adam, BOIVIN Nicole, KORISETTAR Ravi, KOSHY Jinu, WHITTAKER Paula, 'Stone axe technology in Neolithic south India : New evidence from the Sanganakallu - Kupgal region, mideastern Karnataka', *Asian Perspectives*, 2007, vol. 46, no.1, pp. 65-95

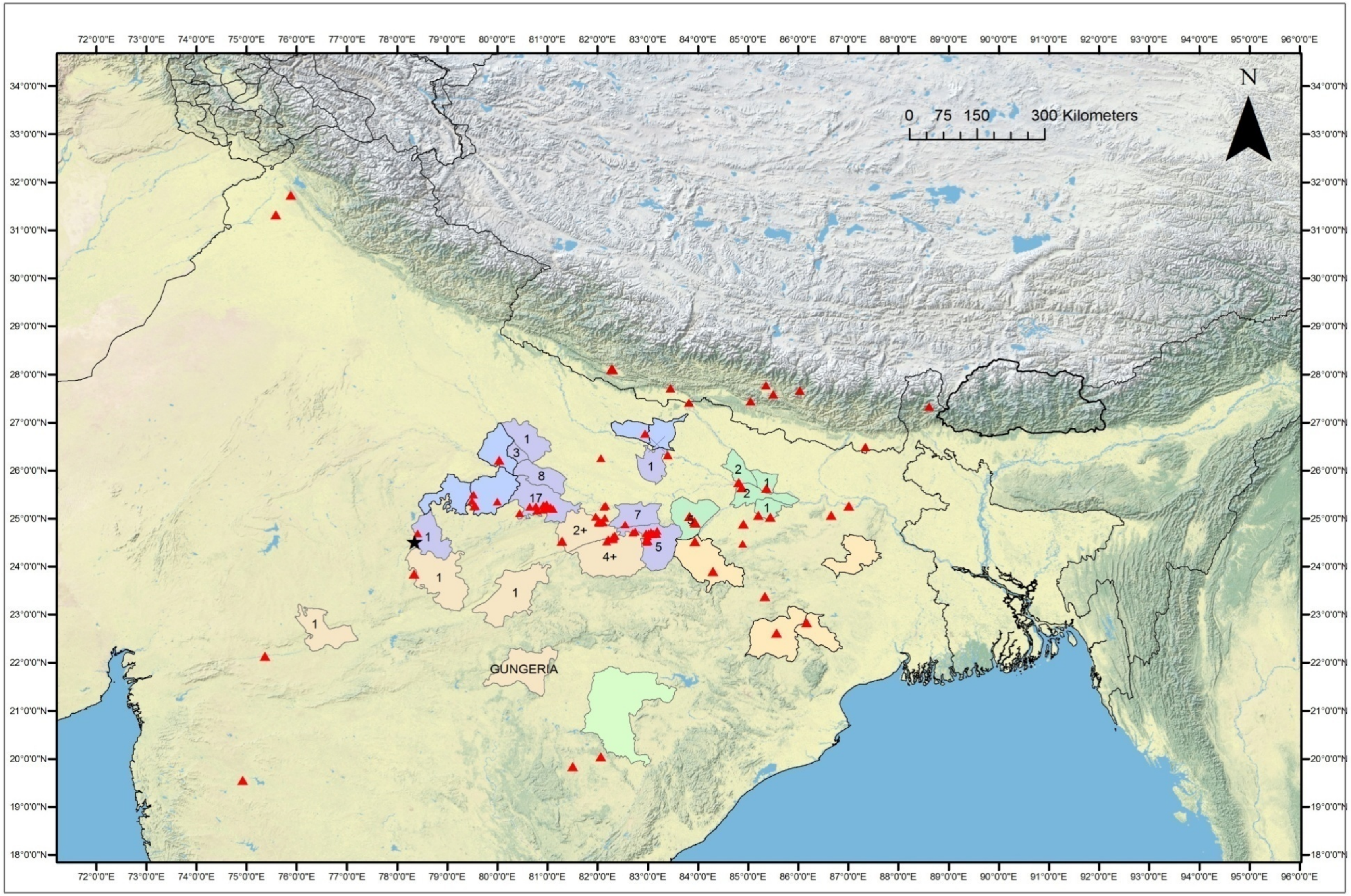
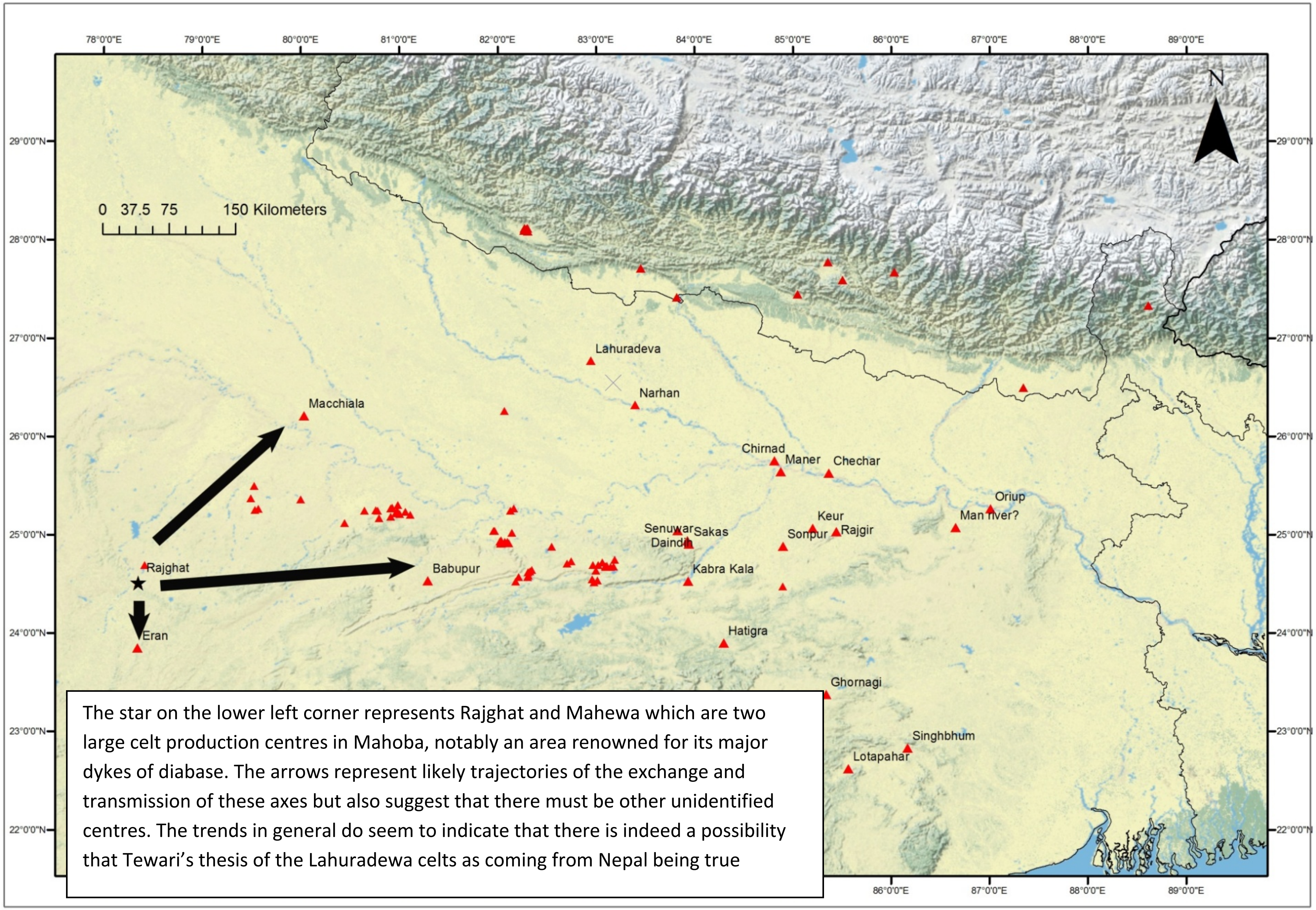


Figure 9 Celt distributions across North India



The star on the lower left corner represents Rajghat and Mahewa which are two large celt production centres in Mahoba, notably an area renowned for its major dykes of diabase. The arrows represent likely trajectories of the exchange and transmission of these axes but also suggest that there must be other unidentified centres. The trends in general do seem to indicate that there is indeed a possibility that Tewari's thesis of the Lahuradewa celts as coming from Nepal being true

Figure 10.

evidence has suggested that celts are used largely for the chopping of woods in an efficient manner and for other such activities which are performed on a regular basis. Suggestions have also persisted about how they may have been plough heads in a more elaborate arrangement but this has never really been substantiated.

In the region under study, celts begin to appear alongside what are understood to be the late complexes of the Vindhyan Neolithic. Interestingly, this on site record which is mostly concentrated in the dense Belan valley – Drummondsganj area is not commensurate with a major distribution of celts which exists towards the west of this complex in the districts of Banda, Hamirpur and Chitrakut[86] and further extends into Mahoba[87] Jhansi and Lalitpur[88]. This complex may represent large areas where there are further early complexes which have not yet been extensively revealed by surveys and these seemingly uncontextualized remains of sites. This distribution as can be seen has received some attention and is a known element. What has not been stressed is that the location of dolerites and basalts is discreet in the Vindhyan series and they appear to have been far from ubiquitous in their distribution. In fact, as of now the only major known settlement site in district Mahoba at Mahewa[89] is one which is known to have produced large quantities of debitage and seems to have been a production site of a similar order to that of Hiregudda – Sanganakallu and at Sulabhdhipi. A broad distinction between stone types and a recognized difference between the triangular pointed butt shaped celts and more rounded ones suggests that there at least two regional traditions which are producing celts in this region or alternatively that these are similar but different artefact categories which were produced perhaps with different ends in mind.

The most concerted belt of distributions which are associated with the known 'Neolithic' complexes are those in the Belan valley in Districts Rewa, Satna and Allahabad as well as their continuum these complexes appear to describe through the region from the districts of Mirzapur, Varanasi, Chandauli and Sonabhadra through to the Senuwar complex in the Kaimur foothills of District Rohtas. This entire belt sees a large association of these polished axes with both known early period sites as well as in the Mirzapur region a long history of being noticed from the mid-nineteenth century in apparently unassociated complexes. In fact these early reports are a reason why even before the discovery of the associated Vindhyan Neolithic complexes, the region was marked as a 'Neolithic

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[86] IAR 1963-64, p.43

[87] Rakesh. Tewari, Ambika Prasad Singh, 'Exploration along the Gunchi Valley: District Mahoba (Uttar Pradesh)', *Pragdhara* 10, 109-121

[88] IAR 1959-60, p.46-47

[89] Rakesh. Tewari, Ambika Prasad Singh, 'Exploration along the Gunchi Valley: District Mahoba (Uttar Pradesh)', *Pragdhara* 10, 109-121

region' in the earliest of Synthesis by Subbarao for example.[90] As with other parts of the country a tradition also exists of venerating these stones and these have documented as removed to an deposited in Temple complexes in the Mirzapur region.[91] An additional complex appears to have been the belt of sites along the Ganga in the Bihar plains. Further, we also know of a few celt finds in the Sarayupar, in one's and two's from the sites of Lahuradewa, Narhan and Imlidih. Rakesh Tewari has rightly and parsimoniously suggested that these may equally have an origin in an ill-known distribution and possible microlithic through polished axes complex in the Nepal region.[92] However given the fact that there are sites of the Bihar complex which are known to have celts probably of Vindhyan origin in the region north of the Ganga Tewari's suggestion must be considered against the possibility of a possible system of interaction with the Vindhyan complexes as well. If anything that possibilities are still open highlights the need for the study of the artefacts themselves to discern whether they reveal any trends about the networks.

An important and vital aspect of the polished axe trade in this part of the world is its temporal dimension, which is a feature which has perhaps never been fully appreciated. The trade and indeed even the production of these artefacts certainly does not mark the beginning of the long trajectory of increasingly complex patterns of floral exploitation which this discussion has been at pains to emphasize. We do not have as yet a clear idea of when this trajectory actually begins, owing to the confusion with stratigraphy and cultural materials in the early Vindhyan Neolithic complexes, but it certain that they are in circulation by the dawn of the third millennium BCE. The reason however that they are being considered in the discussion on the present period is that all put together there seems to have been as much evidence for their trade in the subsequent Chalcolithic and pre-NBPW periods, alongside tools in Copper and Iron to merit a consideration here. These have proved to be discomforting association and extremely uncomfortable presences for most excavators who have

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[90] B.Subbarao, *The Personality of India. A study in the development of material culture of India and Pakistan*, (Faculty of Arts, Maharaja Sayajirao University of Baroda: Baroda, 1956).

[91] Rakesh Tewari and G.C. Singh, Exploration in District Mirzapur (Uttar Pradesh): 1999-2000, *Pragdhara* 11, 91- 104

[92] Rakesh Tewari, R.K Srivastava, K.K Singh, K.S Saraswat, I.B Singh, M.S Chauhan, A.K.Pokharia, A.Saxena, V.Prasad, M.Sharma, 'Second Preliminary Report of the excavations at Lahuradewa District Sant Kabir Naga, U.P :2002-2003-2004 & 2005-06' *Pragdhara* 15, 35-68 Tewari suggestion is important as there are extensive celt distributions in the Nepal foothills and in two valley systems as well. However, the most detailed opinion on their evaluation in fact suggested that it was celt using people from the southern region, i.e. eventually the Vindhyas who had moved to Nepal. There are extensive deposits of diabase/diorite in Nepal and the frequency of distributions suggest that there it is plausible that there may have been an independent centre and culture of production of these axes. In any case the matter si far from clear and there have been no contextual finds from Nepal although there have been more than 30 instances of artefacts being recovered. For Nepal see discussion in G Corvinus 'The Prehistory of Nepal After 10 Years of Research', *Bulletin of the Indo-Pacific Prehistory Association*, 1996, Vol. 14: 43-56

often been at pains to explain away their presence and have stressed that their finds in these later periods are merely survivals or disturbed contexts.

At present it is difficult to tie down the other contexts of the production of these artefacts and to consider if the routes in which they reached their end-consumers changed over the approximately 2500 year period when this trade may have been active. The importance of this exchange must also be understood in the context of how it appears that these patterns of exchange appear to have cut across many of the cultural boundaries which have been otherwise suggested as being emergent and evident in this period.

Perhaps the single most striking aspect of collating the data across the state of Uttar Pradesh and reviewing it is the manner in which the evidence, again, suggests a measure of complexity for the region of Kanpur, Unnao and even Lucknow (on the basis of the uniquely moulded axe from Dadupar) which has hitherto, apart from the case of Lucknow, not been documented in culture-historical terms. It appears now that the distributions in the districts of Fatehpur, and these adjoining regions may represent a significant cluster of 'pre-NBPW' assemblages which future excavations and radiocarbon projects shall probably attest to and document. For the Kanpur region, after the evidences of the Late Stone age and the Mesolithic this is perhaps again testimony for a far deeper antiquity in time than what appears to have been considered the case in the major study on the region.[93] In a more impressionistic sense, the area which is covered by this extension as seen in the map here may even represent the broad limits of zone where we can expect the depths of settled agricultural villages to extend to this period.

In this same period, we witness the rise of complex and still very ill understood traditions in the area of the Sanjay and Suvarnarekha valleys of Singhbhum which appear to have been other complexes where polished and ground axe production was a major activity. This complex, while it has been known via surveys in these regions of Jharkhand and the adjoining areas of West Bengal has again been somewhat problematic in terms of its culture historical associations and is largely stuck between a microlithic preceding phase and a Chalcolithic succeeding one. As has been argued above, it is probably associated with both and bears a continued relevance over a long period of time.

The finds in Raipur and in district Dewas represent two currently unassociated and completely unknown complexes about which very little can be established at present. The finds in the Jabalpur, Sagar, Lalitpur and Jhansi regions on the other hand are strong indicators of another regional complex which we are yet to completely come to terms with. At Eran, where period I has been

[93] Makhhan Lal, *Settlement History and Rise of Civilization in Ganga-Yamuna Doab, from 1500 BC to 300 AD* (Delhi, BR Pub. Corp., 1984)

described as Chalcolithic and Malwa a total of 4 ground axes, which seemed not to have been fully ground or represented a different tradition than those in the Vindhyan zone were found over the course of the multi-year excavations.[94]

In bringing this discussion about the manner in which broad archaeological cultures seem to have been defined in the eastern Ganga plains over the course of the second millennium BCE it is clear and apparent that amidst a large common material cultures there are many unique and local traits which both clearly and in a more diffuse manner mark out the major cultural spheres. The celt distributions are suggestive in as much as they complicate this picture of elements with a network that seems to run right across them. As Figure 10 demonstrated however, even if, as they do appear to complexities which run deep in time through to c 1500 BCE or earlier in the Sai valley in the Lucknow region as well as in the Musanagar – Sengar river mouth areas, these questions still leave large vacant spaces in the region to the West. This is perhaps the biggest vacant area and the largest gap which faces North Indian archaeology at present. Given that there are now demonstrably older complexes which certainly begin c. 2000 BCE if not earlier in the Lucknow region at the heart of the Ganga plains, is it still possible to imagine that there are no older or contemporaneous settlements to the West in the region on a North South axis, from Agra to Saharanpur? This and the whole host of problematic issues which it raises are amongst those which shall be considered in the next section.

IX. The trajectories of Western Uttar Pradesh from the second millennium BCE through to the emergence of the Painted Gray Ware

As had been discussed above the course of developments in Western Uttar Pradesh seem closely related to those in Haryana and Punjab and it appears unlikely that we shall approach any clear understanding of these features until we can come to comprehend the different cultural trajectories of different small regions within this large area from the period of the Early or Pre-Harappan and seek out trajectories which are implicated and transformed during the course of the Integration era and understand the manner in which any divergent trajectories seem to emerge in the Localization era / ‘Post-Urban’ phase. The discussion here shall begin by referring again to the major discontinuities in our records and by focussing attention on what is and what is not known in terms of the distribution of cultures in space and time.

[94] IAR 1964-65, p 17-18, IAR 1961-62, p.24-25

Chakrabarti's recent surveys have been important in documenting and establishing that assemblages which appear to date to a period somewhere between the integration and post-Urban phases, are far more extensive and widespread than had hitherto been considered. While earlier resolutions had focuses upon a possible site or two in the Muzaffarpur area, it is his contention that in the entire area from Saharanpur in the north to the Mathura region in the south are marked with such distributions. Chakrabarti's clear illustration of the forms and vessel types which he is encountering are indeed eloquent testimony a cultural complex that seems to be as Chakrabarti relates 'in a Harappan tradition' and it appears that it shall not be possible to date or place this until systematic excavations and a concerted radiocarbon program is implemented at some of these sites.

In this area, unlike the eastern and even central regions where we now have a major palaeoclimatic record documenting extensive and long-term human-environment interactions and a long record of the transformation of the floral landscape as a major anthropogenic record through most of the Holocene, there is at present no deep palaeo-climatic proxy nor does there appear to be any studies even of late Holocene processes. What we do have a record of instead is one of considerable fluvial change, but a major disadvantage of some of the seminal studies has been the fact that they were primarily based upon remote sensing analysis and have at times suggested contentious identifications[95] and in other cases have failed to provide any major geochronological constraints on the matter of these major changes. It does appear nonetheless, that a major drainage re-organisation took place in the years between 2200 and 1200 BCE as a very wide bracket, although the bulk of these changes may have been brisk and concentrated very definitely towards the early end of this period. These are represented in the form of the major disruption in the catchment and through flow of the Chautang and a suspected rise and increase in that of the Yamuna.[96] Associated with these changes are the abandonment and the disarticulation of a number of small drainages especially those which flew northwards from the Sikar- Jhunjhunu areas of Rajasthan. Amongst these the most prominent appear to have been the Kantali, the Sahibi, the Banganga and other similar rivers. If these changes are accompanied by major impacts in the floodplains and erstwhile terraces or whether they are related to major neo-tectonic events is again something which needs investigation in the field and remains an entirely open question.

What does appear clear alongside these major shifts in the some of the major rivers draining the region is that some of the smaller rivers are known to have behaved in hyper-avulsive and almost unpredictable manners over a historical time-scale in the more recent and better understood pasts. River like the Ramganga and the Kali Nadi for example are medium sized networks and are

[95] Bakliwal, P. C. and Grover, A. K., *Rec. Geol. Surv. India*, 1988,116, 225–228.
[96] It must be noted however that the connection between these two has never been established in the field.

tributaries which run parallel to the Ganga and the Yamuna for long distances before they finally meet the major trunk rivers. Their valleys are small and their floodplains bear multiple records of many phases in which the channel stream itself has shifted often as response to the seismic instability of the foothills and the piedmont fans as well owing to sudden changes in the volume of water they carry in what appear to have been unpredictable monsoons.

The many Ochre Coloured Potteries

The implications of this for the manner in which we can understand the trajectories of settlement in this area are manifold. Firstly, if trends are similar to other regions and suggest that the small 0-5 Hectare settlements of the early period may have been settled along river banks or in strong association with them they would appear to have at some point of time encountered and needed to face a series of large or small floods. This is marked and documented in excavations not only along the Ganga (Hastinapur[97]), the Yamuna (PGW sites like Bhorgarh in the Delhi region[98]) but also along the rivers like the Kali Nadi (Atranjikhera[99]). It is unfortunate that there has hitherto not been any attempt to date and correlate these large and often complex flood records at these sites as they in themselves constitute a major palaeoclimatic proxy and are amenable to geochronological methods like OSL. It does appear that this may be one major avenue, that of entering into the settlement archaeology of the region, via its very discontinuities.

The other avenue of considering the known cultural complexes if far from simple or straightforward and involves the consideration of a number of complexes which are barely defined adequately in terms of its material culture and are very poorly restricted in terms of their chronology. Perhaps the most infamous of these is the Ochre Coloured Pottery, which has continued to be referred to by this unfortunate name which had been given to it on a temporary basis at the moment of its discovery at Hastinapur on account of the fact that it appeared to be completely eroded and preserved no traces of its original surface treatment if it had ever had any. A distinctive feature of this red ware assemblage seemed to be the fact that it was defined by a lack of any other associated wares and further that it seemed to occur at the base of sites with long occupational histories. It must be stressed that at the time of its initial discovery, in the mid 1950's and the first major surveys in the early 1960's in the Saharanpur region, there was little comprehension of the massive nature of the

[97] B.B. Lal, 'Excavation at Hastinapura and other explorations in the Upper Ganga and Satluj Basins 1950-52: new light on the dark age between the end of the Harappa culture and the early historical period' *Ancient India*, Nos. 10-11, 1954-55:5-151

[98] N. Lahiri and D.P. Sharma 'Harappan settlers of the Ganga-Yamuna Doab' in Chakrabarti, Dilip K., National Centre for the Performing Arts (India), and Marg Publications. (2004), *Indus civilization sites in India : new discoveries* (Mumbai: Marg Publications on behalf of the National Centre for the Performing Arts)

[99] Gaur, R. C. *Excavations at Atranjīkherā : early civilization of the Upper Gaṅgā* Basin (Centre of Advanced Study, Dept. of History, Aligarh Muslim University ; Delhi : Motilal Banarsidass, c1983)

settlement in the area pertaining to the Early, Mature and Post-Urban Harappan phases. Yet, from the combined evidence from other sites such as Ropar and Alamgirpur, it was surmised that this assemblages of 'Dish-on-stands with drooping rims', 'globular pots of vases with high and concave necks' and 'knobbed lids' was one which could be placed in the aftermath of the Mature Harappan phase. Ever since then this an increasing number of assemblages have come to be assimilated under the label of the OCP and have come to be labelled as pretty much everything between Late Harappan through Early Vedic and.

A host of intense problems comes about in any effort to define the group and it is wise to point to how a major, and for its times a very successful seminar, which sought to thrash out the issue debated the available evidence and then almost in defeat endorsed the continued use of the term until a better understanding could be arrived at. It is important to note that despite the mounting evidence form many excavations since, owing to some of the more controversial suggestions made in the opening years of the consideration of this assemblage there have been few considerations which are synthetic and comprehensive in recent years.

It is readily apparent that even in the cases where there are few and imperfectly described results and criteria the generic label of the OCP has come to encompass a diverse range of cultures. The first of these to be discovered and established was that which was in the foothills of the Himalayas in the Saharanpur and Muzaffarnagar region. It is here that still the highest concentration of such sites has been reported.[100] The complex here seems to have been characterised by the presence of what are apparently up to 77 sites in Saharanpur District alone and perhaps an equal number in other adjoining areas of the Upper doab. It is unclear how closely these sites relate to each other and whether they represent exactly the same complex or share some manner of internal chronology.

These sites and those a little to the south in the areas of Etah, Mainpuri and Auriaya seem to have been characterized by an assemblage that is not only represented by a much better preserved set of ceramics but also by a marked diversity in forms as well as in the traditions of decorating them. The sum density of sites known in this area seems to have been generally lower and it appears that they may have been a somewhat different complex. It is as these sites that we also have somewhat clearer evidence of settlement remains and additionally the sites of Lal Qila and Daulatpur are the only ones where 'archaic' hand-modelled terracotta figurines have been found. There are very few radiocarbon dates which pertain to the OCP group of sites and most of the chronology has been built upon a series of Thermoluminescence dates, which are noted to have had a wider margin of error

[100] Although it must be noted that a subsequent and usually considered to be comprehensive assessment of the region has taken many if not most of these sites to be Late Harappan without any discussion on the motivations for doing so.

and are an important alternative method but in the Indian context in particular one but of untested reliability. Thus the age bracket for the OCP from sites like Atranjikhera and Lal Qila which seem to have ranged from 2100 through to 1300 BCE need to be verified and in the lack of chronological information from other groups this needs verification and comparison from those quarters as well.

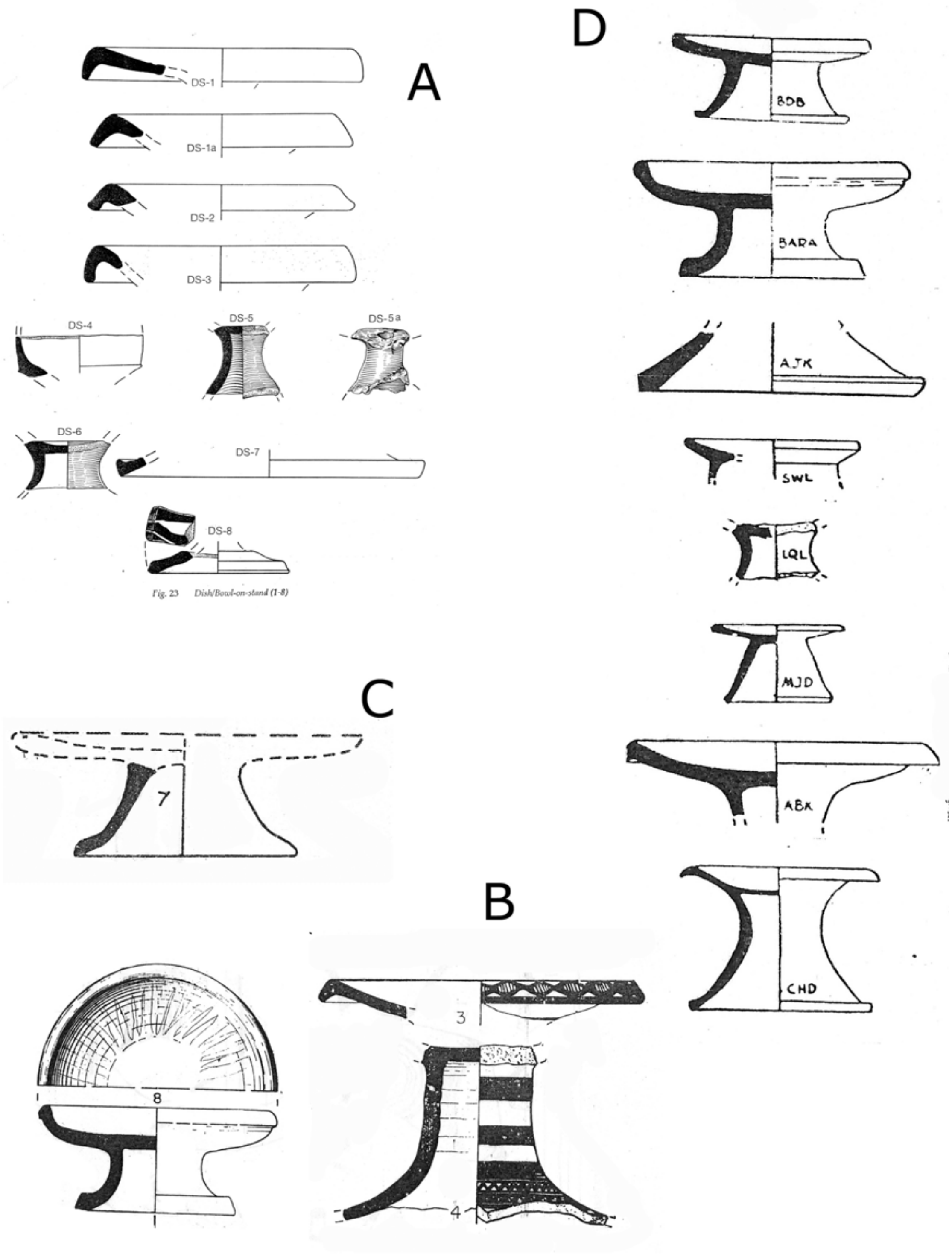


Figure 3-11 A comparative chart of Dish on Stands as described from OCP and other cultures. A is from Atranjikhera (after Gaur), B is from Bara (after Y.D. Sharma 1971-72), C is from Saipai (after L.M. Wahal 1971-72) and D is the chart prepared at the OCP seminar (Puratattva 5, 1971-72) and represents from top to bottom Bahadrabad, Bara, Atranjikhera, Siswal, Lal Qila, Mohenjo-Daro, Ambakheri and Chanhu Daro

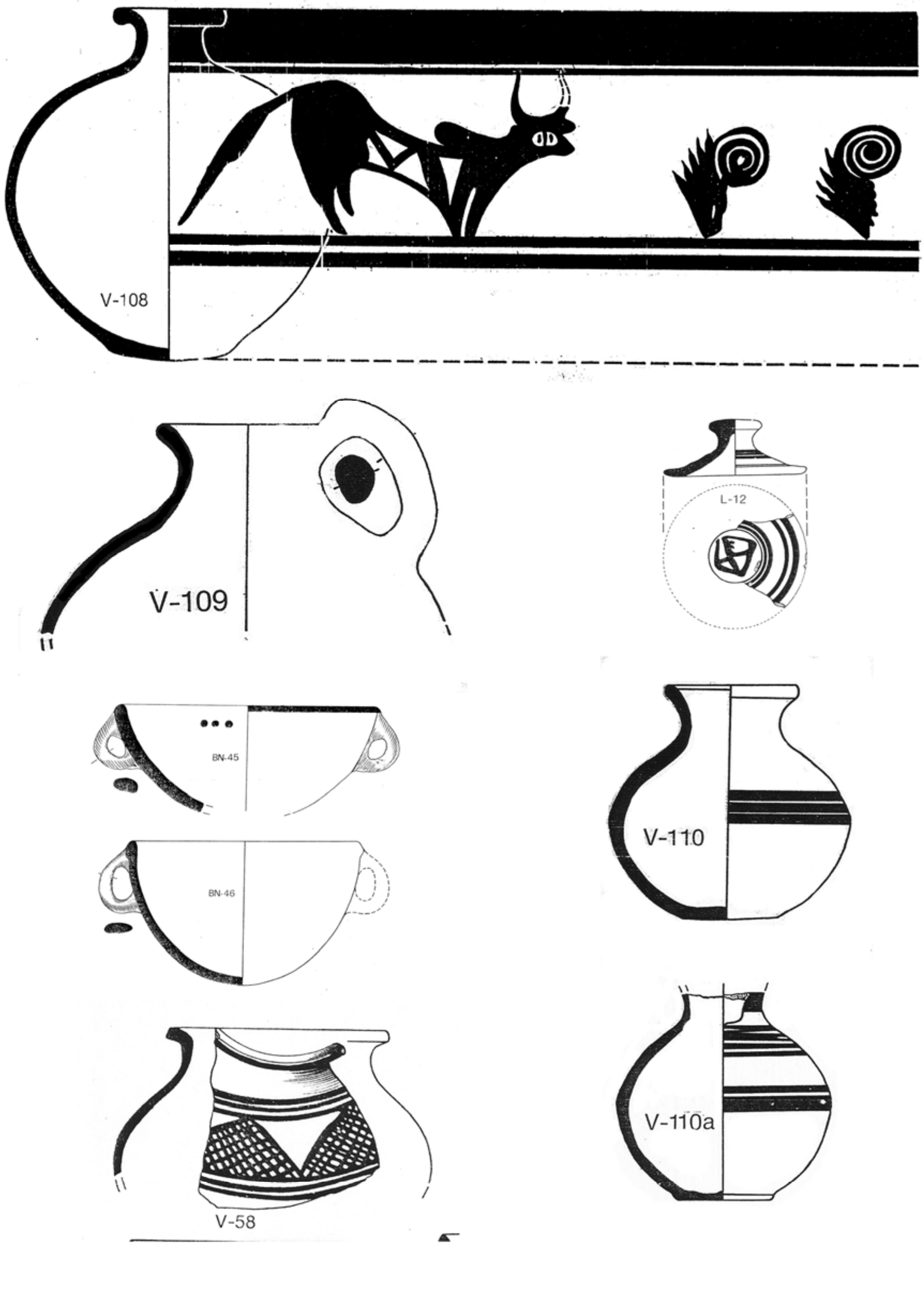


Figure 3-12 Some of the most distinctive and unique vessels of the OCP assemblage from Lal Qila (after Gaur). The remarkable array of painted designs and distinctive forms from the site suggest that it represents a complex quite independent of those labelled OCP in other regions. Notice the lugged handle basins, not reported from any other site.

An even greater degree of confusion attends to a third cluster of the OCP reported sites, those from the Ganeshwara Jodhpura complex. As noted above, the most detailed study to date has argues that the definitive ceramics of this complex are not similar to the Gangetic OCP.[101] However Rizvi does go on to argue that there is a later period to the complex, broadly overlapping as well as appearing to precede the transitional B&RW which is known from sites such as Noh. There is no detailed publication of the forms of this 'OCP' and thus any comparisons or considerations of the complex are impossible without further study of the artefacts and the more detailed publication of the same. The position that this examination of the evidence of all the cultures which have been labelled as OCP thus seems to suggest that there is more than one complex. As Figure 3-11 and Figure 3-12 demonstrate there is a high amount of variability in even the few forms thought to be demonstrative of the ware and that the evidence from Lal Qila suggests that without more excavations of better preserved sites it shall be extremely difficult to come to a comparative assessment of these cultures.

It is notable that there has been very little reportage and findings of associated cultural materials with the OCP. In part this has been attributed to the lack of undisturbed deposits but despite this there do appear to be some trends which are manifest. The Northern complex around Ambkheri and in District Saharanpur appears to have been one which is linked with either residual patterns of trade and interaction of the Integration era / Mature Harappan phase and this is evidenced in the occasional find of apparently Sukkar Rohri type chert blades. In more than one occasion now an archaeological brick kiln of sorts (as opposed to a modern one) has been said to have been associated with the site, but it is unclear whether this actually relates to the OCP occupation or not as excavations have hitherto not revealed extensive or for that matter any burnt brick structures associated with the culture.

Copper Hoards and the Anthropomorphic figures

The most enigmatic and problematic of the associated artefacts of the OCP culture(s) has been that of the Copper Hoards; which typically have been known from accidentally discovered discrete collections of artefacts that seem to have been buried together. These usually contain a diverse range of artefacts including rings, swords and antennae swords, celt-axes and most evocatively an anthropomorph type figure which we know can recognise in a number of different but related forms. This last artefacts category does not seem to have had any functional use and owing to its weight and often very deliberate and elaborate construction it has been suggested that it is a 'ritual' object. A host of intensely problematic issues has attended the consideration of these 'copper

[101] Contra M.D.N Sahi, 'Early interaction between Cultures of the Mid-Ganga Valley and Western India', *Pragdhara* 15, 91-115 who has repeatedly argued for the entire assemblage to date back onto the third millennium BCE

hoards' and it is hoped first to make a number of clarificatory statements before entering into a consideration of these objects and their importance in the trajectories of cultural evolution and the present discussion of the distribution of settlements.

The presence of 'copper hoards' consisting principally of celts is something which extends far wider than the area which is presently being discussed and this has something which has often clouded the discussion on the issues of the Copper hoards. The hoards of the Northern Ganga plains have been noticed as defining a clear group in terms of not only their composition but also in terms of their distribution, which seems delimited to about the Kanpur-Fatehpur region in the East and no further. Another discrete set of distributions are known in Bihar and West Bengal but here the artefacts seem morphologically distinct and the anthropomorphic figure is absent in any of its known iconographic forms. Similarly there are small but known distributions in Rajasthan, Madhya Pradesh and even further in the South. It is argued here that until a morphological examination of artefacts and an establishment of the fact that they are similar to each other is achieved all these regional distributions probably indicate regional complexes which may or may not bear any relation to each other. The practice of collecting and depositing copper goods may be representative of a general practice of the hoarding of metallic goods and their deposition in contexts outside of settlement areas may or may not thus be a representation of symbolic and ritual behaviour.

If this 'tradition' of Copper Hoards can be broken down by composition and distribution I further argue here that it can also probably be broken down by time period. Clearly, some of the cache's of celts and axes in the Sikar area of Rajasthan must be amongst the earliest if they are indeed related to the Ganeshwara-Jodhpura complex as has been suggested. The occurrences of the anthropomorphic figures are generally thought to have been contained within the second millennium BCE but some of the other regional complexes may have continued even later. In the Ganga basin the debate over the copper hoards has generally revolved around the problem of which ceramic culture these artefacts can be associated with, something which has been born out of the somewhat extra-regional and trans-historical perspectives as described and argued against above but have principally to do with the fact that almost all of these hoards have been found in contexts which are clearly associated with any site or particular ceramic group.

Given that the relative distributions of these cultures was known ever so imperfectly in the 1950's B.B. Lal's intuitive argument about the possible association of these artefacts with the OCP remain one of the most insightful observations of the archaeology of the area. On the principal of the absence of positive evidence from any other culture and on account of a stagist view of a copper age Lal assumed that the copper hoards would be associated with the oldest culture in the region. In

light of some of Lal's more controversial other hypothesis this one too is still generally not agreed upon despite the fact that now excavations at three sites, Saipai[102], Safai Licchwai[103] and Madarpur[104] have clearly vindicated this association.

This association of copper artefacts with these cultures of the plains have proved to be one of the major grounds on which any arguments for genetic relationship or even one of identity between the culture and the Ganeshwara-Jodhpura complex has been repeatedly described.[105] It is undoubtedly true that there appears to have been a considerable and major network which involved the production and exchange of these artefacts. The networks of these if they can be established back to major source areas for the copper used to produce these artefacts would in itself constitute a major clarification of these questions. Even despite such demonstration, the suggestion has been made that the known existence of copper mineralization in the Pithoragarh – Ambala region were perhaps also used in the production of these artefacts a suggestion which is parsimonious but for the lack of known cultural distributions of the period in the region of the resources themselves.

A major, concerted and recent trajectory of analyzing these objects has been focussed upon the fact that many of these objects themselves have been found with significations, usually in the form of motifs upon them. These seem to continue upon a long tradition in which axes and copper objects of utilitarian use bear short inscriptions, something which is known from the Harappan sites of Mohenjo-Daro as well as Bhirrana[106]. The traditionalist reading of such motifs has generally attempted to stress a cultural vocabulary which is consistent and resonant with the known and imagined parameters of 'Vedic culture'. A more compelling line of analysis has been related to a consideration of the iconography of the anthropomorphic figure itself and two independent suggestions have been made about its possible representation of the form of Indra. While there are of course obvious and intense problems of text and archaeology in this manner of analysis, it is clear that the diverse forms of the artefact itself seem to be communicated a complex system of symbology which still may not be fully understood or comprehended.

The most important example which represents how there are many more elements in the consideration of the OCP cultures has come from a recently reported Copper Anthropomorph from

[102] IAR 1970-71, p.38
[103] IAR 1969-70, p.40
[104] D.V. Sharma, A. Pradhan, V.N. Prabhakar, A.K. Bhargav and K.A. Kabui, 'A Report on Excavation at Madarpur, A Copper Hoard Site', *Puratattva*, Volume 32 (2001-02) 33-54
[105] M.D.N Sahi, 'Early interaction between Cultures of the Mid-Ganga Valley and Western India', *Pragdhara* 15, 91-115
[106] L.S. Rao, N.B. Sahu, Prabash Sahu, U.A. Shastry and Samir Diwan, 'Unearthing Harappan Settlement at Bhiranna *2003-04)', *Puratattva*, No. 34 (2003-04), p.20-25

the site Gujjar Kheri in Sonipat.[107] The figure is a type which has been called a composite, as the head of the figure clearly has been moulded to give it the appearance of the head of an animal. Further 'bull' designs are known to have been found inscribed on early copper artefacts and this anthropomorph too bears one. The iconography and form of the bull figure has also been compared with those known from Harappan seals, and the authors have clearly alluded to another possible trajectory of some significance here. Most surprisingly and interestingly, the copper anthropomorph from Gujjar Kheri bears a nine letter inscription on the same face as the bull figure. These letters as Manjula and Manjula point out constitute a miscellaneous group which share similarities to not only some signs from the Harappan set but also to signs known from the larger corpus of post-Indus graffiti signs as well as showing marked similarities in at least a few cases with early Brahmi letters. The cultural complexity marked by this artefact thus constitutes a challenge to the manner in which we have traditionally interpreted these cultural groups and artefacts. Additional evidence of such complexity has come from the evidence of the symbolic burial of a copper sword of a type which has been found in the copper hoards in the midst of the Late Harappan burials at Sinauli.[108]

The general picture which now seems to be emerging is one which clearly implicates this set of 'OCP' cultures within a larger Late Harappan / Post-Urban Harappan transformation era. It appears relatively clear that over this long period which spans almost the entire second millennium BCE there are complex and ill-understood processes which involve the major expansion of settlements and the emergence of new cultural complexes. It is also clear that certain trading networks such as those in the cherts of Sukkar Rohri, and in carnelian goods as well as Lapis Lazuli come to an end. A major element in this transformation is clearly one of fluvial change in the Ghaggar – Chautang basins but we do not currently understand the dimensions of this well enough nor do we understand the chronology of this fluvial change with a precision to allow us to relate these changes with the changing patterns of settlement patterns in different periods.

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[107] Arvin Manjul, 'Composite Anthropomorphic figure from Haryana : A solitary example of copper hoard', *Pragdhara* 17, p.17-27 it must be noted that the artifact was reported to the authorities and the authors traced it back to the site only after it had been deposited at the Central Antiquities Collection, Purana Qila, New Delhi. The authors describe the site as yielding 'Red Ware sherds of Harappan, Kusana and post-Gupta times'. They additionally provide a description of, but no drawings of nine sherds which they label as belonging to the 'Harappan tradition'.

[108] Here a grave was excavated which had a Copper sword symbolically set upright in the place of where there would have otherwise been a body. This grave contained no other remains. A Photograph of this burial is available at the Archaeological Survey of India's website

X. East and West in the second millennium BCE: Towards a preliminary delineation of the record of interactions and networks

A traditional problem and indeed the major grounds upon which the arguments of the colonization of the Ganga plains by migrating Aryans have been that there is no older settlement in the Upper and mid Ganga plains. Thus the connotations of the OCP complexes as a vague Early Vedic period of occupation and the Later Vedic period associations with the Painted Gray ware complex have met with such wide agreement and ratification. As this discussion had been trying to highlight much of this can be revisited meaningfully and it is now important to consider what the picture looks like in terms of the whole region and whether the distribution of settlements validates such a premise about the settlement of the Ganga-Yamuna doab.

It is clear that in the region to the east of the Sangam of the Ganga and Yamuna there has been an expanding network of villages and settled communities for over a thousand years by the time 1000 BCE comes about. To the west of this marker, the situation is indeed more complicated and needs to be contextualized. As has been remarked several times above we have no palaeo-climatic proxy records for the region which have been studied thus far but we do seem to have indicators that at least from the millennia beginning 2500 BCE and associated with the 'Harappan tradition' there is an extending network of settlement in the districts of Saharanpur through Moradabad and perhaps extending as far south as the Mathura region. The unevenness in the survey data imparts a level of qualification to this exercise which is insurmountable in terms of its coverage of certain parts of the Middle Ganga plains. Nonetheless it is important to note that the most recent survey of the area does not report any OCP from these districts at all, including from sites resurveyed where the ceramic had previously been thought to exist. The magnitude of this survey project and the fact that it did not encounter any such ceramic is perhaps significant.

The other major structuring element is the very manner in which these categories have been constructed even in the process of their documentation over the last 50 years. In their discovery and recording these cultures have been designated as those part of the migratory movement and those which are not and are thus primitive and 'Chalcolithic'. The main purpose of this section is to break down these notions and do demonstrate how even in terms of the fragmentary evidence which is available there are connections and suggestive elements present in both worlds which speak of a world of connections. Further, if one steps out of the Uttar Pradesh area, there are other groups and regions which seem to bear a possibility of similar connections and networks as well.

One element which has hardly ever been examined with an eye to understand the networks in which these cultures may have been implicated is that of ceramics. Part of the reason for this has been the fact that these assemblages, unlike the Harappan, for which was subject to some early study and then a few canonical forms were pronounced, have not been subjected to such close study and defining elements have rarely been identifiable or generalizable over large areas. Further, given the highly regional nature of some of these assemblages it has been difficult for any single person to come to terms with these diverse ceramic traditions, especially when reportage has generally been of a level to prohibit the comparison on those grounds alone. Nonetheless as shall be argued below there are at least two major ways in which the ceramic evidence provides evidence for contact or for shared traditions.

Red Ware Storage Jars of the second millennium BCE

The first of these is concerns the manner in which in the coarse and plain red wares storage jars are designed and thought of. In the Eastern areas, it is clear that despite the diversity in the slipped and polished fine wares there is a basic commonality which continues to instruct the production of the utilitarian types as well inform the decorational regimes of simple appliqué and incised designs which are used to adorn them. The principal type here is a jar which is usually 20 to 30 cms across and has rarely even been found in a preserved enough condition for us to be able to vessel height. This broad class of storage jars are marked by featureless, externally inclined through straight up rims which are defined by a sharp carination at the neck. While it appears that almost all OCP assemblages seem to share a tradition of globular body vases marked by a high neck in a concave profile as a standard element, they also do seem to have some form of the aforementioned storage jar. The implications of this similarity, if indeed it exists in meaningful proportion may suggest contact and a knowledge of the traditions of production in other areas rather than trade and contact as it is unlikely that these vessels were actually used for transportation and exchange on account of their size. An associated trend may be represented in how certain incised and in particular appliqué designs too seem to be common, and may represent shared traditions of quick and easy methods of decorating the large and quotidian use vessels.

A second an equally widespread and almost identically reproduced form is that of a host of appliqué decorations the most ubiquitous one of which is known as the finger tip impression cordon type. This type is known to have been profusely distributed in the Vindhyan and Kaimur complexes and is known to have a long life, so much so that at times it if difficult to distinguish from extremely similar decorative elements which are produced sporadically till the 12th century CE. Nonetheless this a type which is definitely identifiable on account of the distinctive of the medium paste and the light yet fine slip which is given to globular pots and early handi type vessels of the Vindhyan complex. To the

best of this researchers knowledge such a decorative element is not known of in the Late Harappan tradition of ceramics, nor in its antecedents. Yet, this is a frequent find at sites like Atranjikhera[109] and Bhagwanpura[110] and is something which forms an important element in the argument that this section is building.

Many cord impressed wares?

The next element in the ceramic assemblages draws out attention to a completely different order of connections and involves the manner in which certain classes of ceramics may have been produced. The excavations at Lahuradewa and those in the Vindhyan complex have now clearly established that the incipient and early pottery traditions drew heavily upon the use of cord-impressed paddle technique which seems to have been used initially to give the desired form to hand modelled forms but was also subsequently used to similarly beat into shape later wheel made wares. Over the course of the third and more so over the second millennia BCE the rise of slipping and polishing regimes, have meant that often the evidence for such cord impressed techniques of preparation have been subsequently destroyed. We know of their use particularly from the Kakoria-Koldihwa complex where indifferent slipping on many thick red ware forms betrays the use of this technique. The same is the case at Dadupar where it appears in particular that the large and broad trough forms in the thick RW which accompany the BSW and B&RW were given the desired shape by using this technique[111]. Most striking the technique is known to continue down till the NBPW period and at least in the case of the Narhan there is a distinct possibility that some of these forms may actually have been deliberately given a cord impressed exterior as a decorative or symbolic manifestation rather than a simply functional one.[112]

The longevity of this tradition and its multiple context in the west are thus clear but its presence amongst eastern complexes of the second millennium BCE has not as often been noticed, or even when noted it has not been highlighted. This is especially notable it is argued here because nowhere in what has come to be termed the ‘Harappan tradition’ is there any known documentation of such a use of paddle and anvil wrapped in cords. If anything, the ceramic traditions, from the Early / Pre-Harappan onwards in the region of Haryana, Punjab and Western Uttar Pradesh have been aimed towards the production of smoothened and slipped exterior surfaces and do not seem to have

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[109] R.C. Gaur, *Excavations at Atranjīkherā : early civilization of the Upper Gaṅgā* Basin (Centre of Advanced Study, Dept. of History, Aligarh Muslim University ; Delhi : Motilal Banarsidass, 1983)

[110] J.P.Joshi, *Excavation at Bhagvanpura 1975-76 and Other Explorations and Excavations1975-1981 in Haryana, Jammu and Kashmir and Punjab* (Archaeological Survey of India, Delhi, 1993)

[111] Rakesh Tewari, R.K. Srivastava, K.K. Singh, 'Dadupur Excavations 1999-2000-2001, District Lucknow, Uttar Pradesh: A Preliminary Report', *Pragdhara* 12, p.99-116

[112] Singh, Purushottam, Excavations at Narhan, 1984-89 (Varanasi : Dept. of Ancient Indian History, Culture & Archaeology, Banaras Hindu University, 1994.)

involved any use of a moulding technique which would alter this condition once the vessel is removed off the wheel.

In contrast to this there have been known instances where sherds with cord impressions have been found in the context of such sites in the western complex. An early example is the site of Ambkheri[113], where the presence of cord and 'mat' impressed wares was recorded but these were not described any further nor have since any further publications appeared.[114] It also appears that the recent excavations at the site of Madarpur[115], from where a number of copper anthropomorphs were found, also yielded a Cord impressed ware, known principally from what appear to bowl forms or simply broken body sherds. The fact that they seem to represent an entirely different approach to the production of ceramics is what is significant about even these isolated notices. At sites which seem to have a BSW and GW complex upon which the PGW is seen to emerge there too are instances where a RW with cord impressions has been encountered.[116]

The fact that, especially in the early period of post-Independence archaeology not all variations were always reported should also be borne in mind when considering these trends and their numerical dimensions. The fact that the Cord Impressed ware seems to have found some sort of small niche in all of main assemblages is significant and can be stressed here as it helps us explain other seemingly unexplained occurrences as well. Northern Madhya Pradesh constitutes an intriguing area of cultural formations and evolution in the culture-historical trajectories which this chapter has been attempting to trace. Broadly the area which is constituted by the margins of the Chambal basin still remain an ungrappled with and uncommented upon region which seems to have had a unique set of cultural passages. In Morena district for example unsystematic surveys have revealed a considerable distribution and northernmost extents of the Kayatha and then the Malwa wares. It is also noticeable that this also the one of the pockets where S.A. Sali has reported the presence of

[113] IAR 1963-64, p53-54

[114] It would appear that these mat impressed gray wares are similar to those described from Bhagwanpura. These are thick, heavily impressed, as if the vessel had been cradled in a basket at the time of manufacture and firing. It does not appear to be a type which is known in the Eastern assemblages. J.P.Joshi, *Excavation at Bhagvanpura 1975-76 and Other Explorations and Excavations1975-1981 in Haryana, Jammu and Kashmir and Punjab* (Archaeological Survey of India, Delhi, 1993), pl XIII and p. 49. Joshi says that such sherds fired in oxidizing conditions are known from PGW sites at Rajasthan but fails to cite any source for this.

[115] D.V. Sharma, A. Pradhan, V.N. Prabhakar, A.K. Bhargav and K.A. Kabui, 'A Report on Excavation at Madarpur, A Copper Hoard Site', *Puratattva*, Volume 32 (2001-02) 33-54

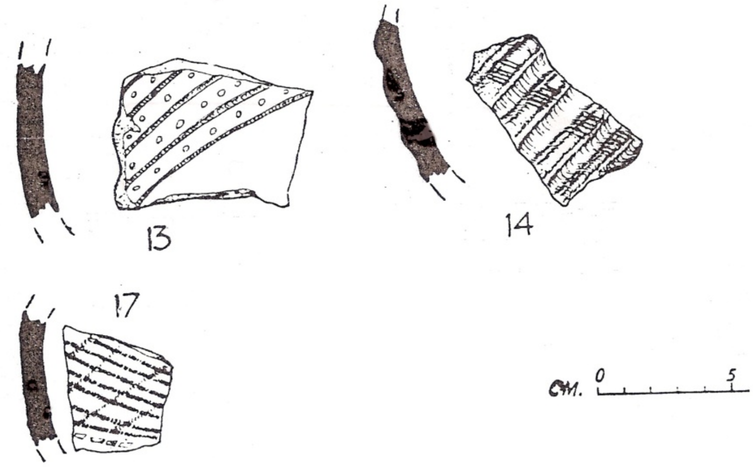
[116] D.P. Tewari, *Excavation at Saunphari and Exploration in Ganga plain*, (2004, Tarun Prakashan, Lucknow) It would appear that the description D.K. Chakrabarti provides of the example of a site near Mathura which also yielded a Cord Impressed Ware in a similar context could also be placed in this broad understanding of the distribution of these wares. Charkrabarti, *Archaeological geography of the Ganga plain : the upper Ganga (Oudh, Rohilkhand, and the Doab)* (New Delhi: Munshiram Manoharlal Publishers, 2007) although it must be stressed that given the evidence from Sonkh it is entirely possible that such example may date to later and independent uses of the technique

‘Harappan’ or ‘Late Harappan’ materials along the river Asan. In this context, the excavation of a site was clearly needed and in the mid to late 1990’s a project was launched by the Bhopal circle at the site of Kutwar which seems to have been marked by an assemblage in its period I which is very similar to that of Dadupar.[117] The excavators describe the ceramic assemblage at Kutwar in period I as "Period I was represented by a pre-PGW stratum identifiable with B&RW, BSW and dull Red wares with cord impressions'.[118] The evidence from Kutwar thus is important not only for the manner in which we understand the possible interconnections premised in ceramic preparation techniques but it has also demonstrated in how little we actually understand of the manner in which culture historical units are distributed.

Rippled and Channeled: An enigmatic storage jar ware type?

The most striking evidence for cultural contacts and the instance which can be substantiated and discussed the most is presented in the case of a highly distinctive ceramic type but one which has hardly ever been seen as deserving its own name. This a ceramic type which is thick, presumably aimed towards the production of large storage jar like vessels and is made distinctive and recognizable by the fact that it bears a series of raised bands on its exterior surfaces. These bands have been made in a fashion which suggests that at the leather hard stage, or even prior to that, the potter dragged his/her hand across the exterior of the vessel so as to create these features of the ‘channel’ or ‘ripple’ which are the terms under which it has typically been described. Sometime additionally this has been called a form of rustication, which while at odds with what is traditionally understood as rustication in the context of the Ganga basin is also a reasonable assessment of the function these small 2 to 4 mm protuberances served. The vessels produced were clearly large, as the curvature of the sherds if often low and even large sherds (4 to 5 cms) occasionally appear almost flat. The exterior surface except for a thin wash remains untreated and by contrast the interior surface has been subject to a greater degree of smoothening through what would appear to have been a more concerted process of repeated washes. The paste is defined by fine organic inclusions which sometime compromise the surface treatments, leaving small pores through to the fabric of the sherd but it is notable that this a trend which is far less than what is observed on other early thick vessel pastes. Amongst other inclusions as of now only a few occasionally pieces of small pebbles can be identified. From some of the sherds of this ware which were found during the survey at Kausambi, it has become clear that only portions of the vessel were given the channel treatment

[117] This identification is made here on the basis of the constitution of wares in the general assemblage and not on the basis of the comparison of forms, which would of course had been desirable but these remain sadly unpublished from Kutwar.
[118] *IAR 1996-97*, p. 64







Drawings and photographs of the ware which has been variously described as rippled, with raised bands or as bearing a channelled decoration. The drawings above are from Atranjikhera and the photographs are from sherds found during the survey

and that the firing conditions of the ware could have equally produced either vessels or broken body sherds which are gray in appearance in terms of both their surfaces and the core. Additionally, it must be stressed that there has not been found yet any sherd which would yield any information about the rim of these vessels as it is presumed the upper portions of the vessel were not given the 'channel / ripple decoration' and thus they may have been recovered but have remained un-correlated with the distinctive body sherds. From the survey at Kausambi it was possible to additionally document that in between the ripples apparently there had been an occasional form of thumbnail impressed decorations as are known on the other plain and coarse red wares.

Having described the ware itself in such detail its distribution is now considered. The Kakoria – Koldihwa complex seems to be the only complex within which the occurrence of the ware is repeated and regular.[119] When it has been found at these sites up to a dozen sherds have been usually reported from each context and while the excavated data has remained unquantified in this respect a similar greater density can generally be inferred. Outside of this region the ware is known in a number of diverse occurrences and appears to have been represented only by a singular sherd. The appearances which seem closest within the fold are those at Senuwar[120], and that at Mahewa[121] in district Mahoba. Senuwar is known to have had a very close connection with the 'Vindhyan Neolithic complex' and Mahewa is a polished axe production site. Beyond this it has been noticed on account of it's distinctiveness in the middle Ganga plains at the excavations at Saunphari in the midst of an otherwise BSW, GW assemblage.[122]

Further afield from what is presumed here as the centre within the Kakoria- Koldihwa complex are well documented examples at Ambkheri again, which in conjunction with the earlier evidence and the existence of definite materials of a late Harappan assemblage suggest interaction in the strongest sense that can be at present identified.[123] Further documentation at a similar complex of the second millennium BCE seems to come from Atranjikhera where instances were reported in Period I (defined as OCP culture at the site.) Additionally, complex evidence comes from the site of Bhagwanpura where in the prior to the 'transitional layers' from the Late Harappan to the Painted Gray Ware phase there are a few clear examples of the ware which have been described as 'a jar of

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[119] It is known from both the type sites and additionally from Kausambi, where it has also been found seemingly in association with the NBPW during the survey.

[120] Singh, Birendra Pratap (Ed). *Early Farming Communities of the Kaimur*. (Jaipur: Publication Scheme, 2004)

[121] Rakesh. Tewari, Ambika Prasad Singh, 'Exploration along the Gunchi Valley: District Mahoba (Uttar Pradesh)', *Pragdhara* 10, 109-121

[122] D.P. Tewari, *Excavation at Saunphari and Exploration in Ganga plain*, (2004, Tarun Prakashan, Lucknow), p.64 for the description of the sherd as coarse RW bearing rustications on the exterior. For the published plate the sherd in question is No.6 on plate 38

[123] Here it had been described by M.N. Deshpande as sherds bearing 'horizontal raised band(s)' *IAR 1963-64* p.55

red ware with parallel ridges over a rusticated surface in the exterior, of medium fabric, showing an oxidized core and treated with ochre wash'.[124] Thus, it would appear that the practice of producing this ware, or receiving it in exchange in the Bhagwanpura – Ambkheri zone would have been an early one. Additionally, while sherds from this last context have not been drawn or presented in photographs the description of urns which were used in the burials at Sanana and Baseri, of the Uttaranchal Megaliths (which shall be discussed below) as 'large sized hand-made jars with mat impressions and ripple marks ranging in size between 48 to 56 cm in diameter' suggests that they may have been similar. What is surprising however is that they are further described as having been 'invariably used for internment' which suggests that until they are published or physically compared this particular instance may not be treated in the same way as the others.[125]

Summary

The evidence of this thick storage jar type, in conjunction with those raised earlier, do provide in concert a complex net of connections about which it is difficult to say too much more until we can safely and securely associate any one of these types to a region and a complex. Since much of our understanding remains inextricably premised on cultural assemblages as defined by ceramics this effort here has been in the attempt of proving that these categories do not appear on close inspection to be as water tight and separated as they were once thought to have been. Over the course of the second millennium BCE distinct and complex regional formations do emerge and consolidate themselves but at the same time there is definite evidence of complex interactions and similarities from across this curtain that has traditionally separated these cultures in the most profound of culture-historical divisions. This division has as often been one which has mapped out presumed ethnic and technological divisions and has suggested that political complexity and change in social organization are attended to, only by this movement from east to west. As this section has tried to argue at the end of this period 2000 to 1000 BCE there are a number of broad formations which are clearly represented in the Ganga basin. In what appears to be a manifestation of the growth and expansion and another phase of re-organization of settlements each of these groups undergoes at least one major transformation before the coming of the epochal year of 600 BCE and the next section shall look to address these.

[124] J.P.Joshi, *Excavation at Bhagvanpura 1975-76 and Other Explorations and Excavations1975-1981 in Haryana, Jammu and Kashmir and Punjab* (Archaeological Survey of India, Delhi, 1993),Color plate F, description quoted from p. 90

[125] K.P. Nautiyal et al, 'Uttaranchal Megaliths --Were they Co-eval of Precursor of the PGW culture? An assessment' *Puratattva*, Vol. 32, 2001-2002, p.75

XI. Transformations and the articulation of new identities: 1500 – 700 BCE

In this period we witness a further process of regionalization which is characterised by the clear emergence of new cultural patterns and their concerted expansion. The settlement in the Ganga basin appears to reach a point which is at its highest yet. This is a period which can be seen as one where clearer records of diversity are visible and they are manifest in both subtle as well as major changes in the constitution of the archaeological record. As always, issues of chronology and continuities have been the most problematic but given the crucial juncture of this period in the metanarrative the debate has often been heated and the exchanges bitter. The attention has arguably been also so utterly one-sided that almost all considerations of the evidence have only considered the western complex and that too only through the lens of the Painted Gray ware. As this section shall demonstrate, this is a paradigm and a narrative which is nothing less than a mythic emplotment of ancient Indian history and is far from even being the text-based archaeology which it claims to be. Theories of race, group identities and of social evolution which pertain to this period have been so heavily inscribed by discourses which have been external to the evidence of the material cultures that it is a major challenge and an important task to attempt to deconstruct and disinvest the following discussion of these trends.

Stable trajectories of growth in the Vindhyan complex

One of the major limitations of our current understanding of the Vindhyan complex is that we have no radiocarbon chronologies to guide us from the excavated type sites nor do we have any indications of how change is witnessed within this larger cultural complex. Thus from presumed origins in the period c. 2000 BCE through to the c. 700 BCE we have no absolute measures of cultural change. It is clear nonetheless that no great breaks in the ceramics have ever really been described nor is there an introduction into any new types of any further wares into the assemblage.

While these developments cannot be parsed out into early or later periods it is clear that a number of technological changes do seem to occur. The Black slipped wares are known to have become increasingly fine over the course of this period and are known to have witnessed major improvements in terms of the fineness of both its paste and the polish imparted on its outer surface. While a full length examination of the assemblage shall no doubt suggest a far more diverse array of trends it is clear that decoration regimes also intensify and the fine Black slipped gray ware is a major target of some of these decorational elements. In fact the increasingly fine black polished finishes may be seen as one of these devices especially as it is concertedly found only on the bowl

and occasionally on the dish forms and not on any others. The use of white pigment, which is notable for its viscous texture even when it is observed today seems to have been a major element in the decorational regimes here. It is often noticed that the potters of the Kakoria-Koldihwa complex used this pigment on the plain and at times even unslipped inner surfaced of their vessels. I suggest here that this is a decorational element which is distinct from the long and elaborate tradition of white paintings over and seemingly 'under' the fine black slipped surfaces which are known from the sites of Sohgaura, Lahuradewa and Khairadih. This use of the white pigment on unslipped surfaces has been noticed on two vessel forms as of now and they are a simple unrestricted bowl type as well as on a more complex bowl-on-stand / pedestelled bowl type. Both these vessels have been given a distinctly polished and well finished black exterior surface. I argue here that the viscous white pigment is a particular decorative element which is characterized by a light and almost invisible shade when dry but when it is wet is markedly visible. We may have evidence here of an interest in producing table-wares which are consistently used in the consumption of fluids and /or gravy like foods.

Alongside this more complex tradition there is a clear and evidenced trend in the production of simple designs upon the gray ware in black pigments or even by a technique which may be called 'slip-dripped decorations'. In the latter it is often noticed that the aim was to produce a vessel which is slipped on partially on one surface and the rest of that surface is decorated via thin trickle like designs of the slip which seem to have dripped down when the band of slip was being applied. Often these are then casually joined via a quick stroke linking such trickle bands. This is a tradition which is wide in its distribution across both space and time.

A tradition which seems to characterize this later period in the Vindhyan and the eastern Ganga basin is a distinctive and often extremely elaborate form of post-firing incised decorations which are produced upon fine red slipped and occasionally even partially polished vessels. It must at the same time be noted that incised decorations are also known on some plain gray and red wares which are present in these assemblages as well. Such decorations were discovered for the first time amidst the earliest levels of Kausambi but were found in a extremely mixed deposit and were confused with what are similarly produced but an entirely different set of medieval post-firing incised decorations. Subsequently a much wider array of examples was found at excavations in the Vindhya's including an extremely elaborately decorated pot from Deoghat which was covered in a number of bands as well as decorations between them. Most recently, the presence of such a decorative regime has been documented from a number of excavations in a number of different contexts and has been provided with some chronological constraints as well. It is known now from the sites of Malhar and

Jhusi in a complex which seems to be similar to that of the 'Vindhyan Chalcolithic' and additionally there are known distributions in the Sarayupar, where it has been reported from the sites of Lahuradewa and Imlidih Khurd. Broadly this distribution seems to have been commenced reasonably early in the second millennium and is more widespread and known at all of these sites by c. 1100 BCE. It must be stressed that at present we do not have a study which defined the seemingly wide range of designs which are scratched into the surface of the pots not do we have any methods at present of comparing the designs in the distributions between the Saryupar and the Vindhyan complex. Additionally it must be noted that in the Sarayupar distributions the emergence of the distinctive Narhan types marks a break and a lower limit in time for these red wares and that such a marker may also be true for the Vindhyan complex.

It additionally appears that apart from these trends in the more complex manifestation of ceramic craft production other crafts too seem to emerge and are conspicuously documented in the archaeological record. It appears that the crafts of bead production and even of preliminary glass production may have witnessed a growth and elaboration. Green glass bangles of a simple undecorated type which are usually circular in their cross-section are known to have been a conspicuous element in not only the graves but are also found in at the habitational sites with reasonable regularity. As this a craft which represents an altogether different stage in the pyrotechnological capabilities it is an extremely important development and may precede the emergence of glass technologies in other regions as well and thus badly needs securing in an absolute chronology. Additionally, the single gold artefact, found from only one of the 15 odd megaliths which have been excavated till now, is another measure of the value that was accorded to precious artefacts and the symbolic capital that accrued to them.

A final indicator of what appear to be considerable trajectories of growth in the Vindhyan complex is the fact that there are a number of instances now of the known distribution of two to three sites in regions often at some distance from what would appear to be the core distribution of the complex. While at present owing to the lack of any radiocarbon data it is impossible to present this in terms of a later period of expansion or relate these distributions in any other fashion. What is noticeable is the manner in which these sites represent isolated clusters of one or two habitational sites and thus most parsimoniously are probably indicators of much wider distributions in these areas of Districts Banda, Chitrakut, Satna and Sidhi, which have hitherto witnessed not hardly the level of repeated and intensive exploration which the areas of Southern Allahabad district and Rewa have undergone.

Filling in the gaps: The middle Ganga plains and the region from Jalaun to Lucknow

A major achievement in the archaeology of the Ganga basin in the last decade has been the establishment of the fact that there are significant markers of settlement in the region which may date back to as far as the beginning of the second millennium BCE. While this is currently known in terms of absolute radiocarbon chronologies for only one site, that of Dadupar[126], near Lucknow, the lessons of the excavations at the site are significant and pose one of the most important questions at present in the archaeology of the region. These questions resolve around the nature and distinctiveness of the complex and merit considered and close attention.

The site of Dadupar had been frequented by a range of archaeologists who had noted that the site presents a cultural complex which begins with a Black and Red ware and Painted Gray ware sort of complex, a trend known and documented for the Lucknow region. The excavations at Dadupar yielded a complex at the base of the sequence which was represented by a Black Slipped ware, a Black and Red ware and an associated Red Ware. A few of the vessels in both the Red ware and the Black slipped ware were documented as prominently baring Cord impressions and this seems to have been a strategy in the case of certain forms to shape the large vessels into desired forms. The subsequent Painted Gray period betrayed some changes and the arrival of the ware which lends its name to the period, thus by and large the excavations were documented a cultural succession which was known to exist.

The radiocarbon chronology which demonstrated, on multiple dates, that the beginning of the complex dated to circa 1800 BCE however has led to a considerable revision on what is 'known' and about the received wisdom on the chronologies of cultural complexes in the Ganga plains. As the excavator confesses in the lack of the series of radiocarbon dates it is likely that any commentator would have placed the complex to circa 1000 BCE or a century or so around that date. As shall be argued here a closer examination of the cultural assemblage, and in particular the ceramics of the earliest period at the site lend further additional evidence to this revised chronology and settlement history.

[126] Rakesh Tewari, R.K. Srivastava, K.K. Singh, 'Dadupur Excavations 1999-2000-2001, District Lucknow, Uttar Pradesh: A Preliminary Report', *Pragdhara* 12, p.99-116

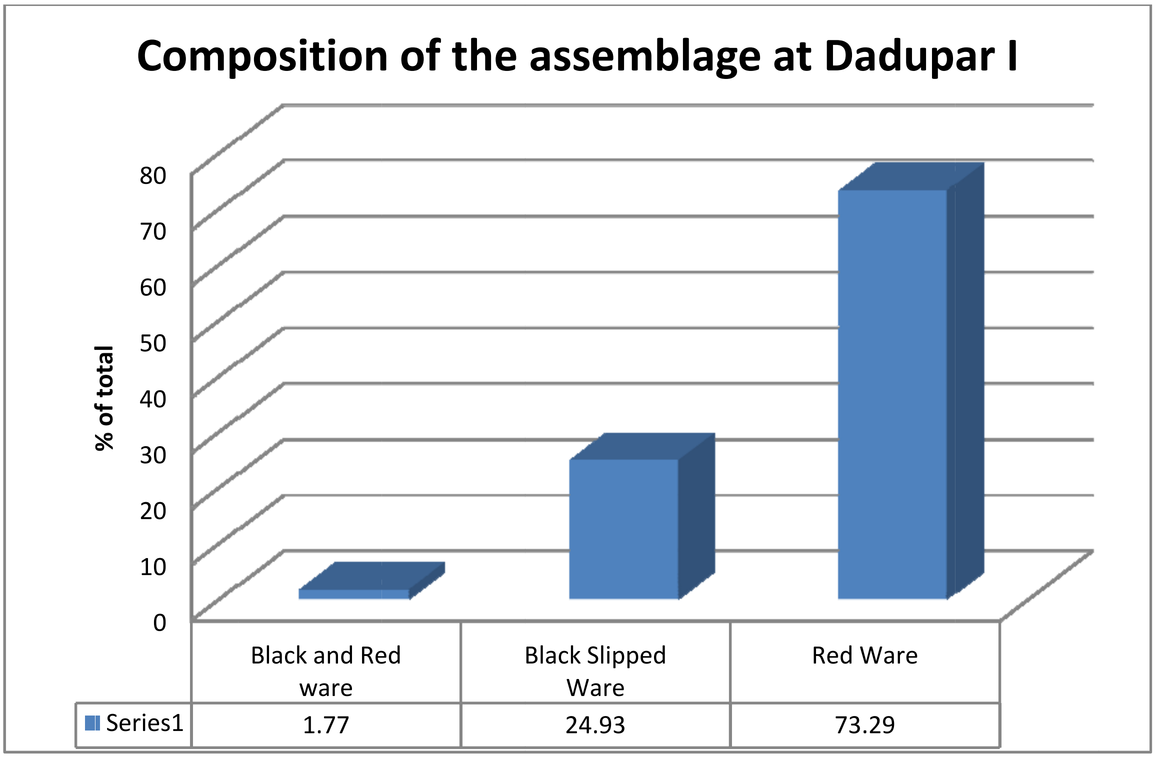


Figure 3-13 Composition of ceramic assemblage at Dadupar I

As Figure 3-13 clearly demonstrates the Red ware dominates the assemblage and is principally known from a variety of Jars and a few examples of a bowl, dish and a large sized basin. Further, it is reported that the slip generally provided is light and known often to erode completely. Other forms in this type are known to include what is referred to as a lipped bowl, designed specifically for pouring uses. The Jar types are varied and are known to have also been shaped using a cord impressed paddle and one of these is reported as preserving simple black bands alongside its exterior. Morphologically, the jars are broadly a series of globular constricted vessels of which a prominent group is defined by the distinctive form of a carinated neck and flaring outgoing featureless rims or occasionally grooved rims. The excavators mention that a substantial proportion of the vessels appear to have been handmade while others are clearly thrown off a wheel.

The Black slipped ware is known principally from dish and bowl types and is known to have been finely slipped and polished to some extent and present what is clearly the fineware of the assemblage. The Black and red ware related to only a few coarse specimens of the storage jar class and is made distinctive by a coarse paste with a high percentage of organic inclusions.

Similar and even more compelling evidence has come from the site of Musanagar, on the Yamuna, district Kanpur Dehat.[127] A range of handmade and wheel thrown Red wares are known from the site, some of which are known to have born cord impressed marks and others document a tradition of rusticating the base with a slurry. Mostly the jars are described as being handmade while a range of bowls and dishes have been identified as being wheel thrown. As at Dadupar, the Black slipped Ware is known from a variety of bowls and dishes in finely slipped and polished finish and the Black and red ware is limited to coarse and thick sherds presumably of storage jars. As is clear the two sites seem to represent a similar if not nearly identical complex. Additionally it should be mentioned that both sites are implicated in the Celt trade from the Vindhyan region to the plains and examples of each have been found at both sites, with a unique and extremely finely finished axe type being known from Dadupar.

As this description makes quite evident, the ceramic assemblage of Dadupar are considerably similar to those documented for the Vindhyan complex. These are connections suggested also by the and the known evidence for celt exchange mechanisms and the implications for the networks they tie these sites down to. The early evidence for Iron at Dadupar has only added another dimension to these process, a facet which Tewari has repeatedly argued to have been linked with production at sites such as Malhar and Raja Nala ka Tila.[128] Tewari focus has commendably been on the documentation and the delineation of the complex and as with other excavations he has not been drawn into the problems of assigning culture historical labels to various periods. Yet, while this caution is salutary, I believe the grounds here are sufficiently strong to make arguments for a close relationship if indeed not an identity of these complexes with those of the Vindhyan / Kakoria-Koldihwa complex. This is an argument based on the ceramic identity of not only many forms in the respective wares, but generally of the production regimes and the structure of the assemblage. The implications of this consideration are several and they imply that one can begin to break down what are a series of assemblages which have hitherto been understood usually with reference to the presence of only the fineware, i.e., the Black slipped ware. If we look beyond that, it appears that this settlement complex in the Lucknow and Kanpur regions shares an experience similar to that of the Allahabad - Pratapgarh zone. Despite the evidence from Kausambi, for years there was hesitancy in recognising any extensions of the Vindhyan complex towards the plains. As recent excavations at Jhusi and Hetapatti have amply demonstrated the culture complex has long and abiding interconnections with the Ganga basin and it is argued here that the earliest known assemblages at

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[127] Rakesh Tewari et al, 'Trial Excavations at Musanagar : 1995 (Preliminary Observations)', *Pragdhara* 6, pp. 67-75

[128] Rakesh Tewari, 'The origins of iron working in India: new evidence from the Central Ganga Plain and the Eastern Vindhyas', Antiquity, Volume: 77 Number: 297 p. 536–544

Musanagar and Dadupar are manifestations of the same. It is unfortunate that there are no radiocarbon dates from the Musanagar excavations as these would have shed ample light on these transformations, but in their absence a chronology similar to that of Dadupar, if not even earlier, may be safely assumed for the site.[129]

The Bihar Complex: A record of ethnic difference in pits and urns?

One of the most fertile moments in the production of social existence upon which group identities are expressed are the actions performed to mark and communicate the death of an individual. In the acts of commemorating the dead discourses about power, status and identity are inscribed in manners which often, if not always, mobilize the use of material cultures. As has been argued above, amidst a basic similarity of ceramic types one of the main elements which defines ad distinguishes the Kakoria-Koldihwa complex is the presence of the often monumental megalithic cairns and cists. As this discussion has noted it appears that the Kakoria-Koldihwa complex shares some sort of a boundary with the Kaimur region from where groups with a similar trajectory during the 'Neolithic' period undergo somewhat dis-similar trajectories of cultural change.

One of the most marked trajectories of growth during this period of 1500 – 700 BCE in the areas of the Kaimur and of the Bihar plains both to the south and he north of the Ganga is what appears to have been a marked trajectory in the growth of the number of sites and in their distribution, which presumably is still understood only very imperfectly. It is important to note that these cultures are mostly defined by a BSW, B&RW and RW assemblage which appears to have been characterized by the development and production of increasingly fine Black and Red wares as well as Black slipped wares with distinctive types of bowls and which also now come to include the dish type. Owing primarily to these similarities there has generally been the idea that this period belongs to a generic Chalcolithic period in the region and no real cultural identity or groupings have been recognized.

One of the major contentions of this discussion is that there are clear and drastically different cultural markers which are visible in the archaeological record for this region too and it is a generalized and universalised concept of both the 'Chalcolithic' and 'pre-NBPW' periods which has served to homogenize and gloss over actual trends in the material culture. In contrast to the Kakoria-Koldihwa complex, it appears that a repeated trend of Urn and a specific and extremely elaborate form of pit burial complexes have been repeatedly encountered in a series of the Bihar sites, but

[129] It must be added here that the massive excavations at Hulas Khera, also in district Lucknow, appear to share a very similar assemblage and it is against the traditional interpretation of the results at that sites, excavated through the 1980's that the evidence from Dadupar should be considered. Notably Hulas Khera has also yielded evidence for the channeled and rippled ware in the form of the distinctive markings on the exterior surface of thick sherds which have been fired in conditions rendering them into a black and red ware.

without a considered synthetic account or due consideration. While such a discussion is attempted below it must be noted that is shall be conditioned and tentative especially given the problematic nature of these occurrences to traditional schemes of thinking about the past and to the extremely patchy nature of the descriptions available. Additionally, it must be stressed that the discovery of these burials has been made so episodically and seemingly quite often with no knowledge of other nearby evidences that comparative observations which could have been made have not been addressed and thus these occurrences are isolated in a number of ways.

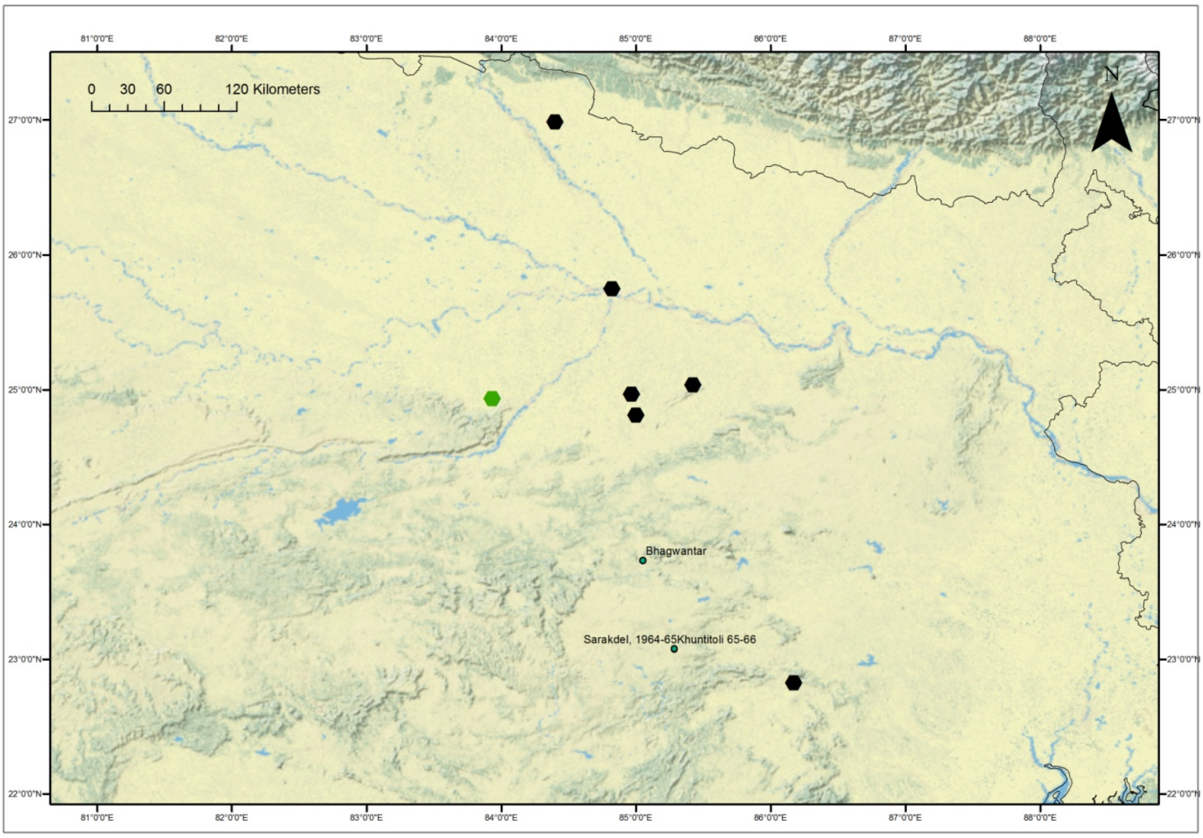


Figure 14 The Bihar Burial sites, The site marked in Green is Senuwar which does not seem to demonstrate similar evidence

A consideration of the distribution and chronology serves as a good entry point into this discussion. A cluster of sites is visible in the districts of Gaya, amongst which the evidence at Sonpur[130] is at present the only known excavated instance. Notably nothing of this sort of a burial practice has been reported from the excavations at Taradih, which is further to the South and has a cultural sequence which begins in the Neolithic and continues till the Pala period. In contrast to the North, at the site of Rajgir[131] which becomes one of the truly massive urban sites of the early historic period, a vast

[130] B. P. Sinha and B. S. Verma, *Sonpur excavations, 1956 and 1959-1962* (Patna : Directorate of Archaeology and Museums, Bihar, 1977.)vii, 142 p., [28] leaves of plates (1 fold.) : ill., maps. ; 29 cm.

[131] A. Ghosh, 'Rajgir 1950', *Ancient India*, 7:1951, p.66-78

and diverse range of evidence seems to have been unearthed in two distinct excavations which appear to have been in considerably different areas of the large site.

Upon this reasonably well defined group of sites in Gaya district two other sites present to us evidence which suggests that such practices may have been spread over a much larger area. The first of these is the site of Chirand[132], although as shall be discussed below the evidence from here is not unequivocal. At the site of Lauriya-Nandangarh[133] which is close to the Nepal border there in clear and complex evidence of what appears to have been a large urn burials complex, which in 1905, when they were excavated were perhaps marked by small earthen tumuli. The discussion on distribution must also include the known existence of sites to the South of the Gaya complex, in Jharkhand where excavations at the sites of Sarakdel[134] and Khuntitoli[135] have documented the presence of a complex cultural group, otherwise referred to as the 'Asura' sites. Additionally in between this cluster in the Ranchi region and those in the Gaya district there is a documented cluster of Menhir sites, which may represent a related if different manifestation of such processes of memorialisation.

This distribution seems to have an extremely complicated, ill-understood and long chronology. The evidence from Sonpur and Chirand and one of the complexes at Rajgir appear to have been clearly placed in what were described as pre-NBPW Chalcolithic horizons. The evidence itself however would appear to need further study and qualification as at Chirand it seems to have been primarily that of elaborate and considered animal burials in pits which in at least one case included a small 'sarcophagi' rather than human burials. At Sonpur however in an assemblage with comparable ceramics during one season the excavations are known to have encountered a complex of post-cremation pit burials, where an unspecified but reasonable number of such burials were excavated.[136]

The most reported but unfortunately not well documented example of this complex was encountered at Rajgir first when A.Ghosh decided to excavate a small trench in an area already exposed by an erosional feature. Even in this small area Ghosh encountered 3 burials, each of which was marked by the preparation of an extremely elaborate pit which was dug and then elaborately plastered with clays before what appear to have been post-cremation remains were placed in them

[132] B.S. Verma, *Excavations at Chirand*, (Patna : Directorate of Archaeology and Museums, Bihar, 2008)
[133] AR-ASI - 1905
[134] IAR 1964-65, p 6
[135] IAR 1965-66, p. 10
[136] IAR 1959-60, p.14. Excavations conducted by B.S. Verma of K.P. Jayaswal institute

either with or without an urn.[137] Further excavations at Rajgir went onto include a number of areas, one of which excavated in the season of 1973-74, was at a site where a Jain Svetambara Temple was about to be constructed.[138] Here it was clear that at a point of time well within the Early Historic period and associated with the NBPW and cast-copper coins, Rajgir had been home to communities for whom burial and memorialisation were important. Urn burials were noted in a number of forms: some were noted to have had a 'cairn-circle' constructed on top of them, others were in a prepared pit, still others included a pit burial without the urn as noted before as well and additionally, what the excavators described as double burials.[139] The site of Lauriya Nandangarh was excavated in 1905 and the burials were labelled as 'Vedic monuments', a tag which aptly represents the interpretational problem they presented. As there is no way to revisit their chronology meaningfully without the study of the excavated remains or through fresh excavations of the site it seems parsimonious to consider the site as similar to the time bracket indicated at Rajgir.

The Asura complex of sites, which have a wide distribution and are extensively related to Iron smelting activities seem to constitute a group which while temporally overlapping is quite distinct. N.R. Bannerjee's account of the burials itself seems to indicate that these are large group burial complexes which are re-used ad the single megalith excavated seemed to contain the remains of about a dozen or more individuals.[140] More distinct evidence came from what is thought to have been the associated and large habitation site of Sarakdel where more concrete evidence was unearthed in terms of diagnostic ceramics to pin the complex down to the early centuries CE and later.[141]

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[137] A. Ghosh, 'Rajgir 1950', *Ancient India*, 7:1951, p.66-78

[138] IAR 1973-74, p.10-11

[139] This is the information published in the IAR. I Urn burial, damaged urn within a large cairn circle rubble stone wall, suggest this is 3rd - 2nd BCE? bead of agate, uninscribed cast copper coin Urn of dull red fabric Associated finds of Urn burials are: TC objects, figurines, Few NBPW sherds, bone pins, TC & stone beads and Iron nails and knives II TCRW and two rubble walls RW of medium to coarse, bowls, lipped bowl, spouted vases, dish handi basin III Diverse burial practices in this period the burials hitherto unknown in the region are post cremation and consist of CIST burial, Urn cum Pit burial, Pit burial and Double Burial TC animal figurines Cast copper coin RW of miniature jars, incurved bowls, perforated cylindrical jars.

[140] The following us a summary of S.C. Ray's report in *IAR 1965-66*, p. 10: Only one megalith excavated, was constructed thus Fist pit dug, then subsidiary pit dug and GG and personal ornaments placed within, then whole pit filled with earth and then till tumulus over which gneissic capstone, before hoisting capstone again. A few pots which included Jars with lids, Small vase and deep bowl as Grave Goods of a central Urn with lid. 37 jars in a total number of 59 pots. All of about same shape and fabric for the Jars. None was B&RW. NO Iron. More than a dozen jars contained human remains charred therefore seems post-cremation. Beads of agate, red paste, coral and bronze and a copper bronze bangle.

[141] The complete absence of Black and Red wares from the habitation and burial complex and the presence fo forms such as distinctive plain Red Ware bowl types and 'Sprinklers' were taken as markers of this period. It is added here that these types may bear a considerably longer chronology and may continue well into the 4th and 5th centuries CE and possibly even further. What implications this has for the Asura complex cannot be

This discussion has attempted to highlight how in the trajectory from the Chalcolithic through to the early historic there is a documented record of a range of burial practices which have not generally been commented upon. It is argued here that they constitute an important record of self identification and the expression of identity especially in their discreet distribution, discursive material practices and patterns of self-definition, especially vis-a-vis other cultures such as that of the Vindhyan Chalcolithic. Their distinctive and defined presence in the early historic also marks one major entry point into how we may break down and deconstruct what is otherwise a homogenised miscellany of traits as presented in most narratives, something that this chapter shall return to.

Cultural trajectories of the Sarayupar: The Narhan culture and beyond

The case of the Sarayupar is special in the consideration of the 'Chalcolithic' and 'pre-NBPW' periods as it has been a region where such cultures have long been indentified and one where their recognition since at least the mid 1980's was in no doubt. However, renewed exploration and investigation of the issues has today created a situation where delineating cultural groups in this occupation has become again a difficult and complicated issue. It is well known that as early as 1969-70 explorations by S.K. Bhatt had revealed the presence of two sites with an entirely distinctive painted BSW and painted B&RW assemblage.[142] More weight was added to this evidence of cultural complexes 'prior to the NBPW' by the excavations at the site of Sohgaura which was known to have been extensively settled by 1300 BCE and probably went much further back.[143] S.N. Chaturvedi's observations on the general distribution and the nature of the similarities between his excavated materials at Sohgaura and those of the Vindhyan Neolithic complex were the basis of his suggestions in 1984 that there may exist a much larger pattern of settlement which extends across the Middle Ganga plains, perhaps even from Mesolithic times.[144] This is something which is increasingly being vindicated and his observation, which was considerably ahead of its time, was notably met only with scepticism and doubt at the time. Recently Chakrabarti has also written about the manner in which the received wisdom saw such early evidence for any occupation in Bihar or Bengal with

commented upon without further excavations and an establishment of their chronology on independent terms.

[142] Bhatt, S.K. . Archaeological Explorations in Basti district (U.P.), *Puratattva,No* 3, 1969-70: p.77-78.

[143] Sohgaura was first excavated by the University of Gorakhpur in 1961-61 (*IAR 1961-62*, p.56 – 57). The discovery of the mat impressed wares however took place only in a second excavation in 1974. *IAR 1974-75*,p.46-48

[144] S.N. Chaturvedi, Advances of Vindhyan Neolithic and Chalcolithic Cultures to the Himalayan Tarai, *Man & Environment,* 1985, IX; 101-108.

considerable distrust and regarded it as insignificant in the light of historical developments even in the face of mounting evidence to the contrary.[145]

It is in this context that the excavations directed by Purshottam Singh at the site of Narhan on the Kuwano river from 1983-1988 become significant as their reception far more favourable than any before. The excavations documented a complex which was defined both qualitatively and quantitatively by a White painted B&RW which appeared in a greater percentage than recorded at any other site. The typical and distinctive forms included a series of bowls and pedestelled bowls in a fine and burnished B&RW alongside some vases and basins. These types were made eminently recognizable by the widespread occurrence (on over 20 % of all B&RW recovered) of linear designs of parallel white bands, particularly upon the bowl forms. Such designs had not been discovered, especially not in such concentrations before and it is principally on the basis of this that the Narhan culture was initially defined. The report from Narhan also provides what is hitherto the only fully published report for an early site in the Sarayupar (with the exception of Sravasti[146] and the preliminary reports from Lahuradewa[147]) and its macrobotanical program has yielded a wealth of information on just how diverse and broad based the cropping regimes of the communities inhabiting the region by c. 1000 BCE were. [148] It has also been suggested that the Narhan complex shows some of the earliest existence of the growing of cotton outside of the Harappan complex something which is also represented in the finds of types of terracotta beads which are suggested to have been used in the spinning of the textiles from it.[149]

In the two decades since the initial characterisation of the cultural group further complications and trends have emerged and they form a useful site for illustrating the complexities of this period in the region. Explorations by the principal director along the Kuwano and Ami rivers has documented the presence of sites closely spaced on both these rivers, with one being documented at least every two to three kilometres. At many of these the typical bowl form in the white painted Black and Red ware and other associated forms were found and thus the cultural limits of the Narhan complex were suggested to have been mapped out. The complications have arisen out of the reluctance of many

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[145] D.K. Chakrabarti, *Archaeology in the Third World : a history of Indian archaeology since 1947* (Updating Indian Archaeology ;; New Delhi: D.K. Printworld)
[146] Singh, Purushottam, Excavations at Narhan, 1984-89 (Varanasi : Dept. of Ancient Indian History, Culture & Archaeology, Banaras Hindu University, 1994.)
[147] Rakesh Tewari, R.K Srivastava, K.K Singh, K.S Saraswat, I.B Singh, M.S Chauhan, A.K.Pokharia, A.Saxena, V.Prasad, M.Sharma, 'Second Preliminary Report of the excavations at Lahuradewa District Sant Kabir Naga, U.P :2002-2003-2004 & 2005-06' *Pragdhara* 15, 35-68
[148] Mention here the range of crops and footnote to chapter in report
[149] Fuller, D. Q. (2008) "The spread of textile production and textile crops in India beyond the Harappan zone: an aspect of the emergence of craft specialization and systematic trade" in *Linguistics, Archaeology and the Human Past* Occasional Paper 3, edited by T. Osada and A. Uesugi. Indus Project, Research Institute for Humanity and Nature, Kyoto. Pp. 1-26

others to accept the label and the terms on which it defines this new cultural complex. In a sense the problem relates to how while the excavation and discoveries at Narhan certainly led to a new phase of archaeology in the region, none of the elements of its distinctive material culture were 'new', save for the distinctive decorative regime on the Black and Red ware bowls. This too had apparently been known from in smaller frequencies at other sites where other fine ware traditions dominated. The key limits where excavations have provided a window into the quantitative relationship of the wares in the larger ceramic assemblage are those of Khairadih, Agiabir and Lahuradewa in addition to Narhan and we can summarize the complexities by stating that nowhere do the types and forms thought to be typical of Narhan appear in as large a proportion as they do at the type site. Yet small amounts are present apparently at all of the sites, and even a few sherds at Senuwar[150]. This association is then, in the light of markedly different traditions in the Black Slipped ware at Khairadih and in the Black and Red ware at Senuwar suggests a picture of complex regionalisation of ceramic craft processes.

This appears to be a scenario where a number of closely bordering and even overlapping ceramic traditions are manifest within a basic region and are defined by decorational regimes as well as techniques of preparation and finishing which are broadly similar. I propose that these are not merely 'local variations' which can be seamlessly assimilated and understood within a larger Chalcolithic whole[151], and that while the appellation of the Narhan culture may be problematic for many of the sites to which it has now been applied it was valid in drawing attention towards the uniqueness of the type site. Given that similar results have not been published from Imlidih Khurd or Dhuriapar it is difficult to assess how the trends are defined at other sites which would by and large seem to be within the complex. Nonetheless it appears that even within a small region defined by Lahuradewa – Narhan - Khairadih there exists a multiplicity in the ceramic craft traditions and this can at this stage can only be understood as a demonstration of the complexity and refinement which was attending the production of fine wares which seem to have been principally used for the consumption of foodstuffs. Given that the in both the painted B&RW and BSW seem to demonstrate the highest concentrations in this region, it does appear likely that these specialized forms were being traded in networks which extended and radiated out of production centres in this region

[150] Singh, Birendra Pratap (Ed). *Early Farming Communities of the Kaimur*. (Jaipur: Publication Scheme, 2004)
[151] B.P. Singh in R.Tewari (ed.), *Archaeological Perspective of Uttar pradesh and Future Prospects*,(UP. State Department of Archaeology, Lucknow first ed. 1992)

through to sites such as Agiabir on the Ganga, and even beyond like Malhar in the Vindhyas where these types are considerably less profuse.[152]

It is interesting to note that the sole lithic found at Narhan in period I was a celt, and this was a trend repeated at Lahuradewa and Imlidih Khurd.[153] Additionally, the distribution of fired steatite disc beads (not the micro-beads) also appears to have been a feature of these assemblages although it is not known from the extensive excavations at the type-site but has been found in numbers at most other sites. The evidence of this concerted and perhaps parallel and distinct traditions in the production of fine-wares remains one of the most important indicators of social processes which are guiding and structuring the growth of craft traditions in the region. This is an argument which is only heightened and given more weight by the fact that in the associated thick and plain wares there are a host forms which have been described as so similar that pieces from different types cannot be distinguished.

Table 5 B.P. Singh's list of ceramic forms by ware which cut across more regionally specific distributions in the painted and decorated traditions.[154]

Pottery from the Sohgaura - Khairadih and Narhan complexes show a striking similarity in form and fabric with Chirand, Senuwar, Taradih and Koldihwa Particular mention may be made of
In the RW 1. Pedestelled bowls 2. Dish on stands 3. Deep bowl with everted rim 4. Convex sided bowl 5. Perforated footed bowl 6. Channeled or lipped bowl 7. Shallow bowl of varying profiles 8. Basin with splayed out rim 9. vases with vertical neck having featureless rim 10. Or Vases with long concave neck 11. Or Vases with carinated neck and with flaring rim
In the B&RW and black burnished ware 1. Straight sided bowls 2. Corrugated bowls 3. Flanged bowls 4. Carinated bowls 5. Funnel shaped lid or bowl
Dishes of varying profiles and capacity in the BSW

[152] At Malhar only a handful of sherds have been documented, TEWARI, R., R.K. SRIVASTAVA, K.S. SARASWAT & K.K. SINGH 2000. Excavations at Malhar, District Chandauli (U.P.) 1999: A Preliminary Report, *Pragdhara* 10: 69-98.

[153] The trend is significant because very similar assemblages closer to the Kaimur are associated with profuse use of crypto-crystalline silicas.

[154] B.P. Singh in R.Tewari (ed.), *Archaeological Perspective of Uttar pradesh and Future Prospects*,(UP. State Department of Archaeology, Lucknow first ed. 1992)

Two trends are increasingly becoming clear in the manner in which we can place the Narhan and parallel to Narhan complexes. It appears that the recent recognition of a post-firing incised class of red wares, which is usually limited to globular pot forms, may be a significant marker of assemblages which are antedecant to those under discussion. The discovery of this class of a decorated ware in the Sarayupar has again thrown up another strong connection between this region and the Vindhyan region and suggests that much further work is required before we can refine or be assured about the manner in which we parse out cultural groups in the region.

The other trend is far more evident and secure and describes the manner in which the fine BSW tradition which is focussed upon the production of dish types comes to dominate in a succeeding period where the production of Black and Red ware fine forms, such as the Narhan bowl types, either completely comes to an end or becomes a statistically insignificant part of the Sarayupar assemblages. The production of thicker and crude (i.e. with basic surface treatment regimes which are at most limited to a wash) Black and red wares in storage jar types in known to continue but the category of table-wares now clearly comes to be dominated by the Black Slipped ware which is produced in increasingly thinner fabrics from a paste which is also witness to increased processing and refinement. The fine Black Slipped ware is known for this fine paste and increasingly refined slipping techniques which are usually described as being fine, i.e. thin and have equally been commented upon for the fineness in their finish. This exceptionally fine finish is often found in the dish types but has also been known to have been applied upon the exterior surfaces of the pedestelled bowl type thus indicating that a lustrous and fine finish was a desired and important component of the table-wares for this period. It appears that the traditions of decorating the Black slipped ware with a paintings in a white pigment seems to become more restricted and also come to an eventual end during the course of this process of increasing refinement and perfection.

A wider number of forms are produced in the Black slipped ware which are made in somewhat thicker executions and with less polished and fine slips. Often these forms are known to erode away to reveal a fine Gray fabric and thus the associated gray wares and black slipped wares of these assemblages are often closely related. An important form which is definitive of this class of vessels is a unrestricted basin class which has a long distribution over time. Significantly, the production of dish types is less refined surface treatments which are usually recovered in large quantities suggests a scale of these commodities from plain to fines which may be a strong indicator of the manner in which refined table-wares and new customs in dining were related to social differentiation and consumption.

The manner in which the Black Slipped ware tradition seems to be a marker of a cultural break and of a new cultural organisation is represented by the differences between period I and II at Narhan where the B&RW fine types cease, early hand-modelled terracottas are now produced and further change in cultural traditions by the appearance of pottery discs, glass bangles and beads and a large number of bone arrowheads. Each of these categories are marked features of a new cultural assemblage that seems to be extensively distributed in the immediately 'pre-NBPW' and is witness to a considerable growth in the number of settlements which extends across a belt from the Sarayupar to the Ganga in the Banaras - Mirzapur belt. This has perhaps been one of the most difficult cultural complexes in terms of its amenability towards a clear definition and is also perhaps the most singularly unconsidered element in the construction of the metanarrative.

A recent study and envisioning of the cultural processes in the Ganga basin before the rise of the NBPW provides us with a useful instance with which to highlight the role of the Black slipped ware in the Ganga basin over the course of the second half of the second millennium BCE. The excavators of Sravasti have contrasted the emergence of the PGW in the Upper Ganga valley as against a single Black slipped ware horizon in the middle Ganga plains and recognize that the NBPW seems to emerge out of the latter while the PGW continues in the northern areas. Whilst this is an important recognition of the divergence which attends some of the cultural processes, it runs the risk of homogenizing the eastern sphere into a single black slipped ware complex. The position taken here is that new forms of tableware in an increasingly fine Black slipped ware undoubtedly become more and more important in most parts of the eastern areas of Uttar Pradesh and Bihar during this period, yet despite this there are clear cultural groups which seem to express themselves in the wider assemblage which this black slipped ware(s) are found in. Even in the Sarayupar, the existence of a distinctive class of Cord impressed jars which seem to have been produced with a more ornamental than functional intent provides a cultural instance unique to the site and the region. In the Bihar foothills and along the Ganga the ceramic assemblages continue to be constituted significantly by a Black and red ware, in contrast to the Saryupar, and this is the assemblage which continues through till the emergence of the NBPW. As has been argued above the Vindhyan complex continues to produce distinctive red ware types and too continues to such a period as through till the NBPW. It is defining the eastern edge of this Black slipped ware complex which provides to be a stumbling block and presents a somewhat hazy frontier, or even a vast gap of empty unoccupied space presumably for migrants to colonize, perhaps by the 'people' of the PGW. As shall be argued below, this cultural complex and the ways in which it has been imagined is a vital component to many of these problems and issues and it is to a consideration of this that this discussion shall now turn to.

Painted Gray Ware: Enigmas of arrival, migration and colonization

The most embittered debate in Indian archaeology over the last fifty years has arguably been over that of how this cultural complex marked by distinctive tableware of reduced fine wares decorated in black pigments over both plain and polished surfaces. The debate has essentially raged over which textual categories of ethnic or textual-authorial groups fit these societies best, the two entrenched positions being those of the 'Mahabharata' and the 'Later Vedic'. As has been the consistent argument in this discussion, neither is a significant step in understanding the archaeological culture rather they are both different elements in the emplotment of the Aryan question and a search for locating a suitable archaeological cultural group. Neither of these has significantly come to terms with the archaeology of the Painted Gray Ware culture. Lal's arguments have always been premised only on two principles those of stratigraphy and a suggested correspondence between sacred geography of texts and distribution. R.S. Sharma's arguments, which have been ever so often been taken as the final statement, are premised on an even more general notion of correspondence between the distribution of this culture and the sense of places and areas mentioned in the Later Vedic texts. Thus the primary argument for correspondence between text and archaeology is one of geography at the regional scale. As the discussion shall hope to make clear below there is little that is clear about the manner in which either of these associations have been made. Before the discussion on the distribution of the PGW culture is engaged with it is important to equally comment upon the other structuring trope of a presumed discontinuity. The influence of the meta-narrative has been so pervasive that any culture which was supposedly Aryan thus had to be removed and marked by a break from anything previous and Harappan. Such was the manner in which the cultural change of Aryan invasion/migration imagined and thus most major theories alongside the two highlighted above agreed on this basic point. It is primarily because of this that the evidence from Bhagwanpura, where the excavators argued for continuity through an apparently transitional phase from the Late Harappan to the PGW has become so contentious and has been attacked repeatedly by those who favour a Later Vedic correspondence. It is important to also highlight that the debate over the shorter and longer chronologies of the PGW, based upon the radiocarbon evidence, has also been largely structured by such subtexts and a need to align this with a presumed chronology of the Later Vedic texts and constrain its beginning within this period.

In an attempt to examine the evidence this discussion shall first and foremost examine the distribution of the sites which have been reported as yielding PGW and attempt to build an understanding of this culture on that basis. Even at first glance it is apparent that the Painted Gray ware culture, which is now known from approximately a 1000 sites, represents a complex distribution which extends over a wide area. This wide area is notably one which spills over and

extends beyond known distributions of previous cultural units and appears to be one which is recording a new process and a different manner of the occupation of this entire this wide and diverse area. Traditionally, and particularly the arguments in favour of the 'Later Vedic' correspondence have stressed that the major distribution of the sites of this culture lie in the upper Doab and this represents the area which the Aryans had migrated into and marks the limits of the colonization of the plains. As Figure 3-15 demonstrates this is an assumption which can only be held to under the most severe of qualifications. There is as much Painted Gray ware in the Punjab and Haryana regions as well as in large swathes of trans-doab northern expanses of the Ganga-Yamuna plains including areas as far north and along the Nepal border as Lakhimpur. Further the fact that there are significant and dense distributions in the Jaipur areas of Rajasthan and ill-known similar occurrences reported from Northern Madhya Pradesh suggests that an interrogation of these distributions is more likely to be a guide to understanding the complex rather than any insistence of correspondence with presumed textual communities and their habitus.

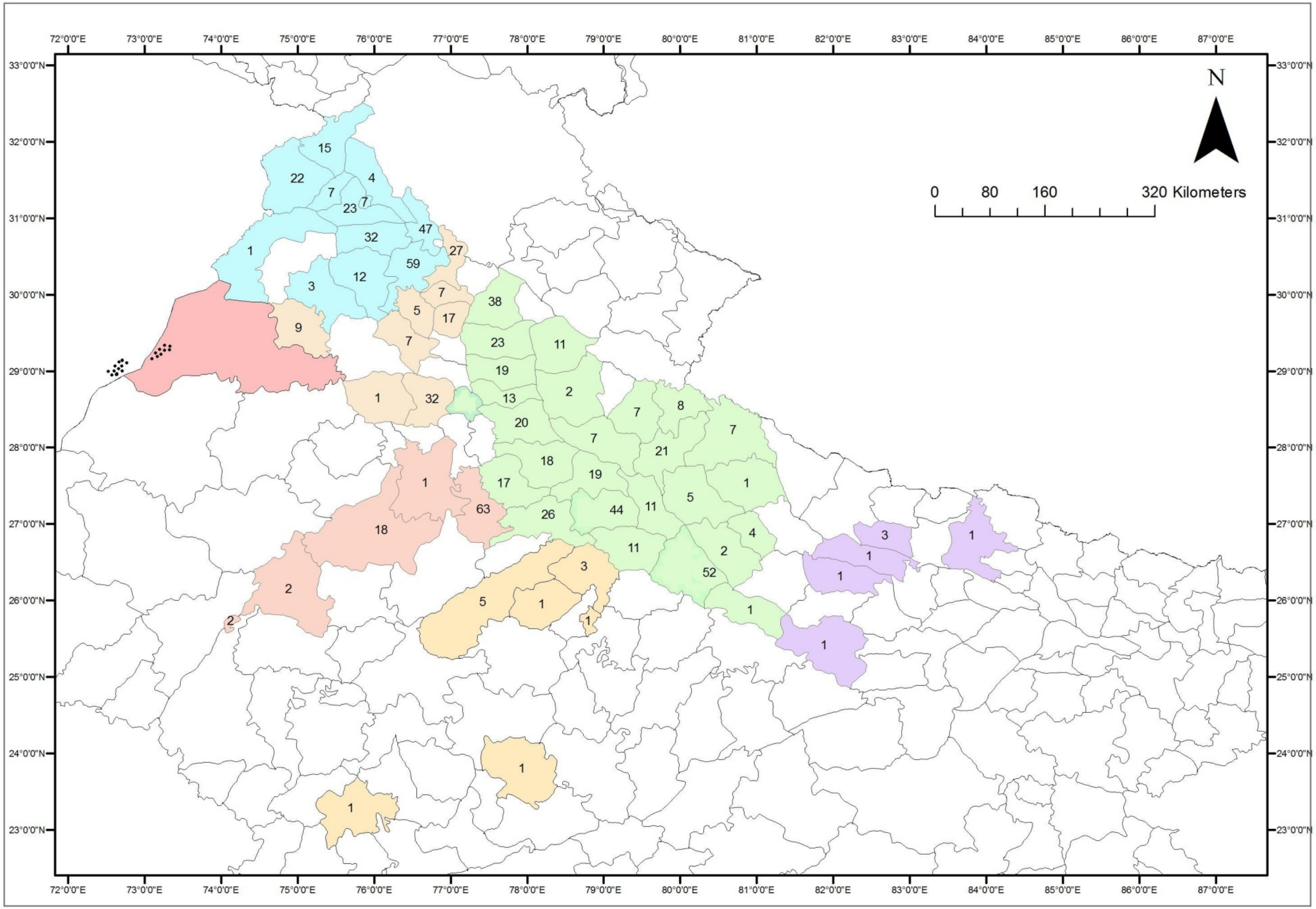


Figure 3-15 Map displaying the distribution of all PGW sites by district. In the extreme Left of the map are represented by dots the sites along the Ghaggar basin which have been surveyed by A.Ghosh and R. Mughal respectively. No precise count is available for Ghosh's sites but they are estimated to be circa 40 while Mughal tells us that there are 14 such sites in the Cholistan area. They do appear to represent a related and single complex detached from the Punjab Haryana distributions.

Representing the data presented in Figure 3-15 in a different manner Table 6 presents the data in the familiar format of states which are unwieldy large and modern entities but are useful on account for their very recognisability and can be used here to demonstrate the gross trends in settlement patterns.[155] A note is necessary here cautioning that the Late Harappan category must be considered as a label we are chained to and one which possibly masks much diversity as argued above. Additionally it must be stressed that while site size estimates are very rare for the PGW period the average site size has been reckoned to be low, and of the order of 3 or 5 Hectares at the most and only two or three sites are known to have been larger than 10 Hectares.

Table 6 State wise gross counts for sites of the 'Late Harappan' and PGW period

State	Late Harappan	PGW
Punjab	142	226
Haryana	368	207 + 50?[156]
Rajasthan	20+ ?	119
Madhya Pradesh	?	12
Uttar Pradesh	126? + 60?	387

Nonetheless a number of clear trends can be seen to emerge. It is apparent that the distributions in Punjab and Haryana, given the dimensions of change related to both the maximum and average size of sites suggests that there are significant and fundamental transformations at work. While a trend of general contraction seems to be apparent in Haryana, this is not one which is matched in Punjab, where overall site densities seem to grow, particularly in areas which adjoin Haryana. The picture which the overall trend seems to represent is one which suggests a major reorganisation of the settlement distribution pattern, which is perhaps linked to a demographic reversal and / or a continued state of the realignment of the fluvial networks of the Ghaggar and Chautang. It is clear that the trends of Rajasthan and more centrally of Western and Central Uttar Pradesh are a record of the establishment of a much greater settlement pattern. This has usually been understood as one

[155] This is also necessitated by the fact that the most comprehensive and fully published survey of the Punjab and Haryana region has published geo-co-ordinates of sites which are often in error by margins of upto 5 to 10 km or more and thus while a closer analysis would no doubt reveal far more interesting social trends this is not possible at the moment. cf. Joshi, Jagat Pati, Madhu Bala and Jassu Ram, (1984), The Indus Civilization: a reconsideration on the basis of distribution maps. In, BB Lal and SP Gupta, eds., *Frontiers of the Indus Civilization*, Delhi, Books and Books, 511-30.

[156] Many students under Suraj Bhan's guidance have conducted extensive surveys at districts levels for many parts of Haryana. Unfortunately full details or even statistical abstracts of their results have remained completely unpublished and thus available only at the Kurukshetra University library, which I was not able to visit during the course of this M.Phil.

of growth and expansion yet a more complex and textured perspective shall be attempted below. As is clear from Figure 3-15 the distribution in Northern Madhya Pradesh in the Morena and adjoining areas seems to be connected with and related with that in the adjoining areas of Uttar Pradesh and may be understood thus. There is a much wider distribution in eastern Uttar Pradesh and at Ujjain and Vidisa in Madhya Pradesh which raises complex issues about the nature of the PGW culture and these shall be addressed in turn below.

The situation in Punjab and Haryana is complicated further by the fact that almost the whole range of possible associations between sites of the PGW culture and those of the Harappan tradition has been described. We know of many sites which seem to have been deserted at some point in the 'Late Harappan' period and others like Bara have an adjacent and clearly related mound (Salaura) which is where the PGW people appear to have settled on virgin land. It is against this background that in the late 1970's evidence was presented from a set of 4 excavations of which Bhagwanpura was the most extensive which was argued to have provided a case for the 'interlocking' of Late Harappan and PGW cultures. The bulk of the argument rests upon ceramic evidence and it is to the credit of the excavators that they produced a full report which presents some measure of the quantification of these trends. While their arguments have been hotly debated on account of the dating evidence and the reliability and interpretation of the Thermoluminesence dates hardly any attention has been made towards the bulk of the massive ceramic evidence.

The Bhagwanpura report is unique because it stands as the only full ceramic report published for a site of the Harappan or PGW traditions in Haryana Punjab region since Independence.[157] It is this very lack of comparability which marks a first and major problem in the consideration of its evidence. It is unfortunate that despite the effort at a higher level of documentation in terms of attention to all wares present, the effort at establishing their relative quantities is marred by the absence of any clear definition of ware types nor is there any clear notion of what the procedures used in the quantification study were.[158] Despite this the 'horizontal' scale and method of the excavations across 12 squares of 10x10 across a 3.20 m deposit suggests that the trends are robust and representative. It must also be highlighted that the mound is described as heavily eroded and

[157] Obvious exceptions to this are Siswal and Mitathal. In general we do have some documentation for the Sothi-Sisiwal complex, with the addition of the first volume of the Kalibangan report but an important commentary on them is the massive confusion which still prevails regarding the nature of Sothi-Siswal pottery and its definitive elements. Garge, Nigam in Puratattva

[158] Not only is no protocol clearly defined there is further no details about whether the entire mass of the pottery was considered or whether samples were chosen and if so how. Most damagingly though, despite the preparation of an elaborate and detailed table which presents relative proportions by floor levels, a degree of detail not published for any other site, but this data is only anecdotally discussed for most parts and no complete statistical tables or trends have been presented.

that the excavations revealed evidence of two floods which raise a possibility of the fact that some of the deposits may have been mixed, something which is also suggested by the small finds.[159] Despite all of these qualifications Bhagvanpura has provided evidence for the slow and gradual processes of cultural change which are represented in the a series of gradual changes in assemblage proportions and the emergence and the painted gray ware without any break in occupation from an assemblage which was represented at the earliest levels of the site by a red ware assemblage characterised as 'Late Harappan'. The report is salutary for its documentation of a range of wares which seem to be part of this the assemblages of this part of North India in the mid through late second millennium BCE and have rarely if ever met with detailed documentation elsewhere.

Central to the hypothesis of interlocking at Bhagwanpura are a range of Gray wares which seem to accompany the Late Harappan assemblage and it is the merit of the report that it draws attention towards and documents these ware categories which are widespread but rarely reported. It is a major failure of the Harappan archaeology of the Haryana – Punjab region to have not provided such documentation. This has been born out of the focus of defining and locating 'typical Harappan' elements at all sites rather than a detailed documentation of what is being unearthed. Thus, despite the report from Kalibangan, the known accompanying gray wares from that complex, or the entirely different and decorated early gray wares from Kunal are known only in anecdotal form and without any clear publication. A similar case has attended the fate of the Banawali and Bara excavations and thus the two major axes along which ceramic definition has proceeded has involved firstly the painted designs of red ware and secondly the morphology of the dish on stand. This myopic focus has created a dichotomy which is false in its suggestion that the assemblages of the Harappan tradition are constituted solely by red wares alone, even within which there has not been any attempt to further definitively define wares. The dilemmas which represent a systematic characterization of the Sothi-Siswal wares from the Early levels of Kalibangan is a case in point. In terms of the basic technological methods as well there is no rupture nor innovation and the diverse pyrotechnological skills of the Harappan world and the possible production of reduced wares. On the contrary it has been noticed that the extensive knowledge and manipulation of such conditions in closed kilns as in the case of the production of the black terracotta bangles demonstrate that the technical virtuosity was manifest in the excellence of advanced techniques involving firing reduced earthen wares.

[159] I am indebted here to insightful observations made by Prof. J. M. Kenoyer during a talk at IIT-Kanpur, in January 2008, regarding the presence of faience and carnelian bull shaped beads and their problematic occurrence in these early periods for which there is as yet no corroborative evidence for their production.

Bhagwanpura thus presented an array of gray wares amidst an assemblage where the more regularly reported red ware assemblages of the Harappan tradition too were evident in a complex miscellany. It is worth recounting the whole range to locate fully this discussion upon a possible context for the early PGW.

Table 7 The range of wares present at and documented from Bhagwanpura periods IA and IB

'Late Harappan wares'	**Wares fired under reducing conditions**
Late Harappan Red Ware	Gray Ware
Red Ware similar to Cemetery 'H'	Burnished thick Gray Ware
Red ware of Bara type	Black Ware
Eroded RW ~ 'Ochre coloured pottery'[160]	Hand made thick basket impressed Gray ware
Thick Red Ware bearing channel / ripple marks	Painted Gray Ware
Coarse RW associated with the PGW	

As Table 7 demonstrates there are w range of wares which appear to precede and co-exist alongside the classical PGW and lay a context within which it emerges. This is most clearly marked by the trends in the upper levels of Period IA where a number of forms previously only known in richly decorated red wares are now increasingly produced in gray wares and the most significant of these is the Dish-on-stand type. This trend alongside the existence of ware categories which we currently do not understand at all in terms of their relation to other traditions of ceramics like the Burnished thick Gray Ware and the Hand made thick basket impressed Gray ware present a picture which is representing new trends in the period which seems to emerge after a slow and gradual retreat of what has been understood as a 'Late Harappan' period. If the stratigraphic reportage of Bhagwanpura is a true representation of these trends it is significant that these trends, of slow and gradual change are in evidence, rather than any major break and replacement or any complete disjuncture as has been suggested in the case of any migration or invasion. Further, while I do not believe we can take the dish-on-stand itself as a marker of any reified Harappan identity or such like, it is significant to note that even this exalted and evocative marker continues through to levels where classic PGW forms emerge and is produced in a plain and reduced gray ware.

The fact that such processes seem to have had a much wider distribution is alluded to by the mere mention of categories of gray wares from almost every major excavation in the Haryana Punjab

[160] This is noted as being confined to only the flood affected areas of the excavated zone and should be taken as one of the strongest indicators of how the term OCP, without any further consideration could refer to a wide variety of completely eroded Red wares, particularly those of the Harappan tradition.

region for sites of the third and second millennia BCE. This observation is not intended as a suggestion of any simple measure of continuity but it lends more credence and substance to the suggestions about similar interlocking which was argued for on the basis of trial excavations from the sites of Dadheri, Katpalon and even Mandi in Jammu. Only further excavations which are sensitive to clear stratigraphic documentation and subject to rigorous absolute chronological dating can eventually hope to clarify the matter. This discussion has highlighted how the most significant archaeological indications for the PGW seem to stress many elements of continuity amidst a long period, which probably saw a significant re-organisation of societal structures and networks over the Haryana and Punjab region. It is important to stress the idea of a long chronology because as has been remarked often for the painted gray ware, no one characterization can fit the whole category and many smaller complexes seem to emerge. It must be considered that the PGW may have emerged somewhere in the Haryana-Punjab region as the product of slow and gradual shifts in craft traditions. It must be stressed nonetheless that in the distinctive tableware assemblage that it defines and in the forms of decoration with which it adorns these it do simultaneously mark a break and a new manifestation in the material culture in these western regions. This is a 'break' which has often been remarked upon and has even been posed in the form of a Dish-on-Stand and goblet versus a Dish, bowl and lots opposition which maps out proto-historic or pre-Aryan and Historic or Aryan cultures of dining and eating.[161] A purpose of this paper is to argue that these changes are far more gradual and perhaps far more complex than being equal to any simple movement from the west in the terms of the coming together of these new cultural expressions and instead may be born out of many sources.

The discussion shall now turn towards an illustration of how these complex arguments presented above for the PGW and its emergence in the Bhagwanpura area are woefully inadequate when it comes to many of the other regions where the ware is known from. Across what appear to be almost ten different contexts, in terms of the manner in which the ceramic assemblage is constituted, the PGW appears in diverse and varying regions and assemblages. How does this impact the manner in which can model and understand the processes of social change and interaction which come to be manifest in the overall record which Figure 3-15 has documented. As a complete documentation and discussion of the all too often very incompletely recorded and published evidence which has but rarely received synthetic treatment is an extremely major task and one which is perhaps not entirely fruitful without a major re-examination of the materials themselves,

[161] H.D. Sankalia, 'Functional Significance of the O.C.P. and P.G.W. Shapes and Associated Objects', *Puratattva*, Volume 7 (1974-75),p. 47-53

the discussion here shall revolve around Table 8 where as comprehensive a summary as possible has been provided.

A few clarificatory statements are required about the interests and motives which guided the preparation of this table and the categories it employs. On account of what is the Painted Gray ware itself, which forms an important question less often asked than may have been apposite, I here recognise a few forms which are 'classical' PGW forms inasmuch that they are defined by a marked similarity in fabric, its fineness and a common repertoire of designs and a similar decorational regime. These include most prominently a high and thin walled bowl type which is a type which is known only from the PGW and is not known from any other ware, even amongst those which precede or succeed upon the PGW in time. The other types are a more round-based[162] dish type as well as a small constricted drinking vessel with a very distinctive vessel profile which it appears either has a very restricted distribution or has been reported from very sites[163]. This form again is limited to the PGW. Stress is laid upon this manner of defining the PGW explicitly and closely because traditions of producing gray ware table-wares is something which is known to continue into the Kusana era, particularly in the case of a dish form, which is often even decorated in a simple form of a black band over the rim. In many cases thus this much later tradition has scope for confusion when only a few sherds were found during survey, although a general marker has been the fineness of the PGW fabric, but this distinctiveness is often ill-understood without personal experience of handling the ceramic ware itself. As shall be discussed further, there are a number of sites where the PGW, in some of these forms, particularly the dish and bowl, and these too with elaborate decorations continues into the NBPW period thus blurring the lines upon which its definition is based.

Another massive complication pertains to the manner in which the chronology of this period is defined which has traditionally been seen as something which continues until the arrival of the NBPW with which it is known to overlap. However, especially in the areas of Haryana, Punjab and Western Uttar Pradesh where the NBPW is known to have a limited distribution (discussed below at length) surveys have encountered massive difficulties in restricting sites to any period. It is not a given that a PGW site shall yield diagnostic Painted Gray Ware sherds when being surveyed and the

[162] This is an important feature as the dish type is simultaneously produced elsewhere and in the BSW in a much more flat based form, a morphology which becomes standard and universal during the subsequent NBPW period.
[163] This may of course also be due to its extreme fine fabric and plain finish, which may have led to extensive breakages and a lack of recognition of its small body sherds to this distinctive type.

problem is compounded by the fact that there are no known types in the BSW or plain GW which can be readily taken as chronological markers of the true PGW period or the later period which continues into the early Historic. This represents a major problem in the manner in which the distributions that this discussion is raising are based upon and it is something which has hardly even been raised adequately enough to have merited much needed closer examination of these associated wares of the region.

Table 8 Tabulation of the various PGW complex and their attributes

S.no	Area and most important sites	PGW forms	Associated wares	Preceding culture if any and associations with the same	B&RW forms in PGW period if present	BSW forms IN PGW period if present	RW: characteristic and defining features	Craft activities known from the complex	Any other feature
I	Bhagwanpura region	All classic forms, including high thin walled bowls, perhaps also the 'lota'	Late Harappan wares in diminishing percentages. 'Typical PGW associated RW' Gray Ware Burnished thick Gray Ware Black Ware Hand made thick basket impressed Gray ware	Ill-Understood 'Late Harappan' marked by elements suggestive of Bara, Cemetery H and other more general Late Harappan forms.	--	Dishes, with a range of variations.	Too diverse to be listed, typical form includes globular and elongated body vessels. Typical Basin types similar to other PGW sites. Other forms include appliqué designs and the rippled/ channelled types which are known from the Eastern sites.	Possible activity in faience production, more certain evidence of glass production. Most diverse set of ceramic traditions represented at a single site. Early Terracotta Human figurines	Two human burials which may have been associated with this period. Gray ware sherds bear graffiti which is broadly Late Harappan or post-Harappan in bearing broad similarities to some signs of the Harappan script.
II	Punjab and	At Ropar all	GW	Late	No	Bowls and	Diverse range of	Glass bangles	While the

	Haryana Bhatinda Gurdaspur Amritsar Hoshiarpur Jallandhar in P Kurukshetra Fatehabad Gurgaon in H Ropar Sanghol[164]	classical forms were available	BSW 'Dusty RW' Alongside a B&RW	Harappan / Bara culture with a period of presumed abandonment interrupting the two occupations of some of these sites.	details	dishes	Storage jars and basin types	and Copper artefacts are known from the complex.	excavations at Ropar have apparently documented a 'massive break' between occupations the excavations at Sanghol are reported as demonstrating an overlap between the Bara culture and the Painted Gray ware.[165]
III	Bikaner and Cholistan areas along the lower Ghaggar valley Sites Sardargarh Chak 86 Jaitpur Rer	No full publication but all forms may have been thought to have existed here	BSW RW GW	Apparent consistent trend of PGW sites being settled on area adjacent to Late or Mature Harappan mounds at a shot distance. This is best	---	No details yet, a full report is in press for Chak 86 and Tarkhanewala Dera	A unique and profuse distribution of a RW with an external surface covered with very regular mat impressions in one case and in another with what appear to have been deliberate	While no craft activities themselves were documented at Chak 86, it appears that the inhabitants scavenged many materials from the site of Tarkhanewala Dera where it is known that bead	A pottery lid with a bird decorating the handle part of the lid is prominently mentioned. Apparent conspicuousness of the sun-sign on the PGW designs.

[164] These two sites are noted for being sites where either no B&RW or a single sherd has been reported. The situation of the B&RW or the forms in which it is present is far from clear in this complex, but it does appear that when it has been reported from excavated sites it is in small amounts. The areas listed are on the basis of sites where sherds of the B&RW have been reported alongside the PGW in the course of explorations.

[165] *IAR* 77-78, p.43-44

				represented by the pair of Chak 86 and Tarkhanewala Dera and appears to co-relate strongly with the changes in the Ghaggar			spiral like designs imparted upon the exterior surface.	production activities were carried out in the Mature Harappan period. Thus even exotic materials like lapis lazuli, the exchange networks of which had ceased to be active in the PGW period, are represented at Chak 86.	
IV	Jaipur – Bharatpur regions Noh	No publication of forms	Black Polished Ware ~ Hastinapur II	A previous phase of a culture defined by a distinctive plain B&RW, which is noted to be different from that of the Ahar- Gilund complex.	No drawings but described as mostly bowls and dishes.[166]	No details	No details published.		TC stone beads, TC discs , PGW discs, painted bird lid of PGW, Charred rice and Copper objects.
V	Bhind – Morena region Gilaulikhera[167]	No details	B&RW GW BSW	Given in last column	Bowls and Dishes, no forms		shapes in fine RW ~ Malwa ware, including bowls and dishes	Lumps of Iron and TC beads, pendants,	IA GW, B&RW, RW and BSW shapes mostly bowls and dishes

[166] IAR 1964-65, p34-35
[167] IAR 1981-82, p.33-34

	And Kutwar[168]		A cord-impressed ware In later periods NBPW		published			bangles and wheels	IB GW predominates, B&RW, fine and coarse RW IC continuation of IB but for introduction of NBPW in this period GW is painted and should be termed painted GW
VI	Agra through Etah, the south-western Doab Khalaua Atranjikhera Jakhera	All classic forms are found at most if not all excavated sites	B&RW GW RW BSW	A preceding B&RW culture which has been suggested to have been the same as the post-Ahar complex known from neighbouring parts of Rajasthan. This is known to present a distinctive range of carinated bowls which are unique. Some dishes and basins. Also there is	One sole dish type with a round base is known form PGW levels	Dish types with some variants are described and drawn.		Atranjikhera yields evidence of textile processing (whorls) and of some processing of agates, possibly for bead production. Much Iron from this sector, at c 1000 BCE.	At Jakhera some evidence for a large moat or channel alongside potters workshop and kiln for which very scant details were published.

[168] IAR 1996-97, p.64-65

				thick B&RW confined to Jars.					
VII	Central Ganga plains Musanagar Dadupar Hulas Khera	Dish Bowl ? Usually represented as shapeless but distinctive sherds. No known report of the high necked bowls.	RW BSW B&RW RW and B&RW often bear cord-impressions and are known in hand-made and wheel made varieties.	RW BSW B&RW	Bowls and Water storage vessels	Convex sided dishes, globular bowls and vertical sided bowls are available in fine and lustrous slips.	RW some cord-impressions noted, often rusticated below the neck / shoulder of the vessel. Notable forms in previous period has many convex sided dishes	Presence of Iron artefacts at Dadupar is noted.	The 'PGW period' is marked by a continuance of previous wares and is distinguished only by the presence of few PGE sherds. The next period is marked by an overlap between the PGW and the NBPW.
VIII	Upper parts of Central Ganga plains from Moradabad to Bareilly and Shahjahanpur and Hastinapura Ahichhatra Suanphari Abhaipura	All classical forms are known including perhaps the widest known range of designs in the high walled bowls. Also a	RW GW BSW Also a brownish-red ware (appears to be a differently fired 'PGW')[170] B&RW? Noted only in	Usually defined as an 'OCP' period as known from Hastinapura and Ahichhatra	Possible dish type	Dish types	Mostly jar types of globular body forms. Some of these from recent excavations at Saunphari are known to bear Cord-impressed marks. The same site yields a ripples/channelled sherd.	Considerable evidence of Iron and Copper. Beads of Agate Carnelian and Jasper are found. Associated with Glass bangles.	Two human burials are now known from the site of Abhaipura.

[170] A fine RW with an evanescent black slip in the shape of dishes with a sagger base, recalling the double slipped ware of Ujjain", N.R. Bannerjee's evaluation of the ware at Ahichhatra during his excavations at the site. IAR 1963-64 p. 43-44

		'corrugated stem' thought to be a fragment of a Dish on Stand.[169]	dish types in later or subsequent overlap with NBPW period.				Occasional mention of fine RW in dish types, perhaps from overlap phase with NBPW. A plain RW Dish-on-stand from PGW levels.[171]		
IX	Uttaranchal Megalithic complex Jainal Naula complex Thapli Sanana Baseri	High necked bowl form, dish types and also possibly the lots shaped vessel as well.	BSW RSW RW	Complex and ill understood evidence which includes possible Copper Hoard production areas and a possible succession of megalithic cultures as represented at Malari and	No B&RW	Variety of dish types in the BSW	Carinated neck jars with flaring rim. Bowls, dishes and vases in a RSW.	Ghata beads, thus there being some evidence for cloth spinning. TC bird, incised patterns on it. Copper bangles.	*Bos indicus* *Sus scrofa* *Equus caballus* Urn Burials inside Dolmenoid cists, the urns are described as being similar to the rippled RW.

[169] Hastinapura

[171] Ahichattra IAR 1963-64 p. 43-44

				this complex. Also known rock-art complexes whose cultural associations are not known, most famously at Lakhudiyar.					
Distributions considered outside or discontinuous to the zones described above									
I	Sravasti	Tall Bowls, and a series of dishes in somewhat thicker fabrics	RW BSW B&RW		Similar to those of the Sarayupar assemblages				The Japanese excavations of the 1990's have spoke in terms of genuine and imitation PGW in terms of understanding the undisputed fine PGW forms as well as forms which appear to be clearly different at the same site.[172]
II	Sringaverapura	A dish type	RW of	Kakoria-		Varieties of	RW with light slips	Iron	

[172] Takahiro Takahashi, Taizo Yamaoka, Fumitaka Yoneda and Akinori Uesugi, 'The Ancient City of Sravasti: its Significance on the Urbanisation of North India', *Puratattva*, Volume 30 (1999-00), p.74-92

	- Kausambi	of thick fabric and a bowl which bears a fine lustrous black slip on the exterior surface.	Kakoria-Koldihwa complex GW (associated with the BSW) BSW B&RW	Koldihwa complex, or Vindhyan 'Neolithic'		dish types, pedestelled bowls. The bowl type considered 'PGW' may in fact be a part of the same.	and cord impressions,		
III	Ujjain	Bowl with painted band along the rim inside and outside[173]	Only found in disturbed contexts of rampart fill. Earliest period here has B&RW NBPW and 'Vesiculated ware'						
IV	Besnagar[174]	No shapes could be determined from the fragmentary sherds. But sherds of PGW are	A Chalcolithic period of microliths + BpRW + WpB&RW+ fineGW+ RW	A break separates them from a solely microlithic culture					

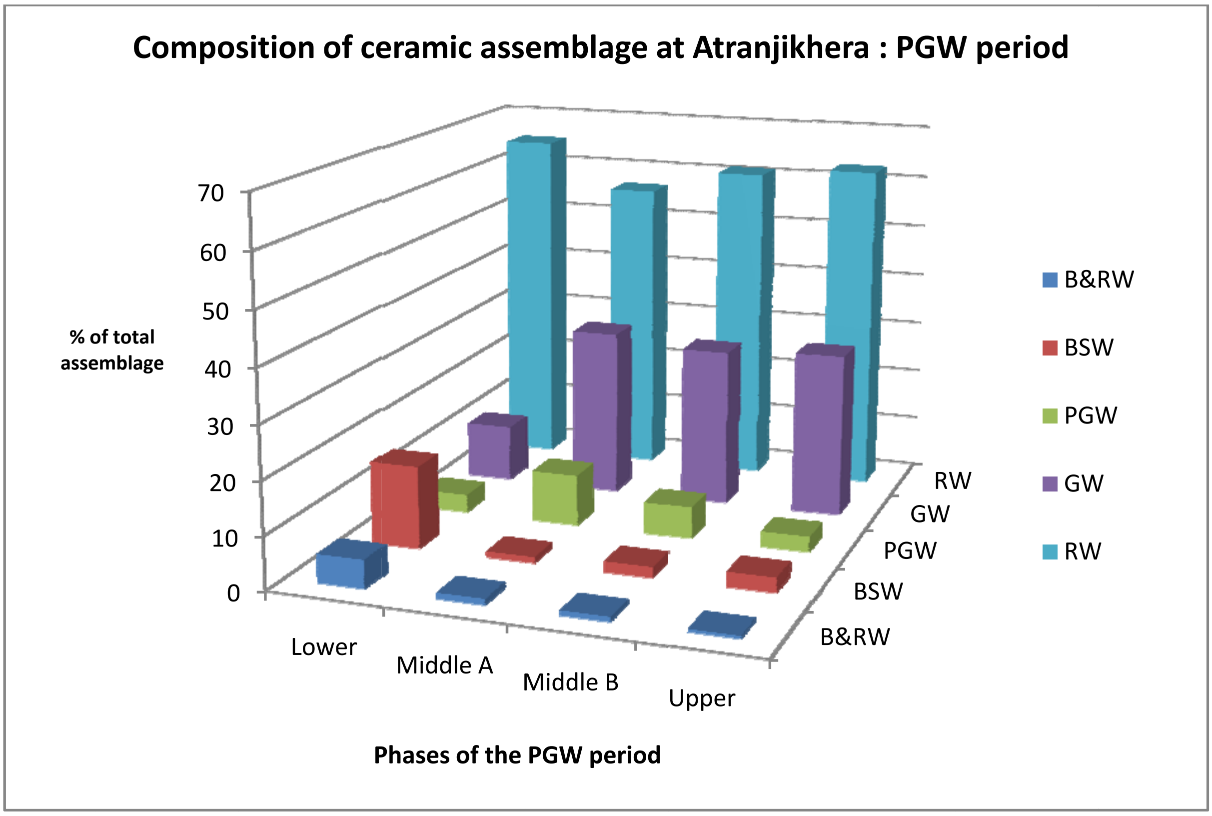
[173] IAR 1956-57, p. 20-27 and

[174] The best statement on this is M.D. Khare 'A short note on the Painted Grey Ware from Besnagar, Vidisha (M.P)' in in R.C Gaur (ed.), *The Painted Gray Ware: Proceedings of a seminar held at Aligarh Muslim University* (Jaipur, Publication Scheme, 1994), pp.110-111

		reported[175]							
V	Kayatha[176]	Shapeless and fragmentary sherds of a fine Gray Ware which resembles the PGW in fabric.	Descriptions suggest that the accompanying wares may have been the Chalcolithic B&RW of Madhya Pradesh	The site is being reoccupied after a break.					
VI	Nepal Tilaura Kot (Taulihava Dt.) Banjarhi (Lumbini District)[177] A gray ware alongside and seemingly just prior to small distributions of the NBPW	Dishes and bowls, coarser than the typical PGW fabric and with loose and more informal designs	NBPW Black and Brown burnished ware Crimson slipped ware Smooth heavy RW with black wash Coarse RW						

[175] IAR 1975-76
[176] Wakankar and Ansari Z D and *Dhavalikar* M K, *Excavations* at *Kayatha*. (Poona: Deccan College, 1973)
[177] Deo reports a three fold division of the gray wares at Banjarhi: A highly burnished dark gray ware, drab gray burnished ware, unburnished drab gray ware.

Figure 3-16 Atranjikhera PGW period assemblage by four sub phases[178]



Before entering into a discussion which shall synthesize both the divergences and the trends of convergence which the above tabulations have attempted to highlight it is important to present the estimations of the relative proportions in which the definitive tableware was present at some of these sites. This is an equally important consideration as it is perhaps one of the most key indexes into any contemplation upon the questions of whether the presence of the ware is a defining characteristic or whether it is the marker of more complex social processes. At Atranjikhera for example Figure 3-16 demonstrated that there are varying trends in the PGW and the B&RW and BSW gross percentages which suggest a change in ceramic crafts which increasingly become focussed upon the production of reduced wares of PGW-GW group. At Sanghol the trend is meant to be similar but even more marked, where in period IC different levels manifest a change in the Late Harappan to a PGW period. The excavators describe the situation as being one where 'PGW and assoc GW and RW account for 30 % in lower level and 70 % in upper level'.[179] Thus the label of a PGE period clearly masks a massive diversity in not only the relative proportion of the principal definitive

[178] Based upon a table of total counts as published in R.C Gaur, *Excavations at Atranjīkherā : early civilization of the Upper Gaṅgā* Basin (Centre of Advanced Study, Dept. of History, Aligarh Muslim University ; Delhi : Motilal Banarsidass, c1983)
[179] IAR 77-78, p.43-44

ware, but also the forms in which they have been identified. Above all, the label appears have to masked a clear diversity of cultures. The discussion from hereon shall try and address that question.

Excursus: Defining the PGW in terms of wares and forms

As a basic matter of trying to define the PGW complex it is clear that the situation is extremely complex once we try and define an assemblage beyond the distinctive tableware which is known principally from 4 classes of vessels: the high walled balls, regular bowls, dishes and the lota-type. As Table 8 has tried to demonstrate there is a great diversity and regional specificities in the manner in which this tableware is found with a range of assemblages which appear to represent different cultural groups. The only major component which seems to be closely related to the Painted Gray Ware and seems strongly associated with it is a plain gray ware, found especially in the Punjab, Haryana and North-Western areas of Uttar Pradesh. This ware appears to have been produced from the same paste as the PGW, is noted as being as fine in its composition and firing and is closely and shares a large number of its forms with the decorated and allied ware. As Table 8 demonstrates in contrast it does not appear that any Black and Red ware was invariably associated with the Painted Gray Ware, nor does it appear that any such ware was significantly involved in a scenario which involved the formation or development of the ware, as has been argued.[180] If anything across all PGW assemblages Black and Red wares (it is important to stress the diversity of there) seem to have been present in extremely small quantities if present at all.

A more regular but again not invariable element is the Black slipped ware, which is present mostly just in fine dish forms, but occasionally in bowls as well. The Black slipped ware presents a rich and complex record, as forms, which on the basis of published descriptions appears to be very similar to the types produced in and known from all the cultural groups in the east, i.e. in the Sarayupar, the Vindhyan complex and the Bihar Chalcolithic. It is important to stress that this similarity is based upon a comparison of forms alone and not any metrical and technological comparisons. While the BSW dishes of the east are known for their increasing refinement in their slipping and polishing technologies my general observation on the BSW dishes which accompany the PGW is that there no reported cases where the finish is described as being as fine. Further, while the paste is often similar to the PGW and plain Gray wares there is no concern with trying to produce as fine and thin forms as

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[180] Cf. Tripathi, Vibha, *The painted grey ware : an iron age culture of northern India*. (Delhi : Concept Pub. Co, 1976 . Vibha Tripathi series of engagements with the PGW are the most concerted and considered efforts to come to terms with the cultural complex and have been distinguished by the effort to recognize some of the diverse contexts in which the ware appears. Tripathi's work is also notable for its attempt to actually study and compare the ceramics from different sites. In terms of understanding the complex itself Tripathi's understanding is sympathetic to a view of some implication within Indo-Aryan migrations but rather stresses upon the role of the complex as one which represents the coming of the Iron Age. Tripathi's work remains seminal but this characterization can now be considerably qualified and revisited.

is the case with those wares. While technological assessments of the paste and more importantly the slips may help establish similarities and differences it is important to stress the fact that the idea of BSW dishes as a component of table-wares seems to have been an important cultural idea common to diverse segments of the cultural mosaic during this time.

The discussion on the black slipped ware brings us towards a consideration of the dish type itself, which is an important and complex issue in the archaeology of Northern India. As a class of unrestricted vessels the category itself may be defined as a class of shallow vessels which emphasize the width of the vessel opening rather than its depth and thus are easily distinguishable from bowls even in terms of formal definitions and criteria. The initial course of discoveries and its preponderance in the NBPW had initially suggested a paradigm which constituted a binary of a dish and bowl ceramic tradition against a protohistoric/Harappan one of Dish-on-stands, goblets and other pedestelled vessels. There is no doubt truth in this picture but the transition is complex and far more gradual and variously negotiated in the archaeological record. Two important observations about the Harappan ceramic tradition are necessary here: firstly, that there is a tradition of producing plain dish types even in the Harappan ceramic traditions and that these are known to have been reasonably common, although there are no studies to demonstrate what contexts these have been recovered in now is their any estimate of their abundance. These types are described in detail however and are known to have persisted through to the Late Harappan complexes. Secondly it is important to stress that the category of the Dish-on-stand itself is complex and its status within assemblages as a tableware has often been disputed by those who believe that it is a 'ritual object' or an offering stand. The position taken here is that it is relatively clear that from the Early Harappan period there a multitude of elaborately constructed pedestelled vessels which are in use and often bear quite different morphologies.[181] It is undoubted that they formed an important role and most of the complete specimens which are known today have been recovered from prominently displayed contexts in burials. I believe that this prominent display of the vessels may suggest that there are parallel traditions of more formal and elaborate and simpler traditions of tableware in the Harappan tradition which may relate to differences in status and resources. This if course only a hypothesis and is not based upon any quantitative evaluation of the assemblage or the relative abundances of these types or the contexts in which they have been recovered.

In the eastern complex, it is notable that a prominent production of dish types, which are distinguished by increasingly flat bases seems to be an earlier and much more diverse tradition. These types seem to emerge alongside a class of pedestelled vessels, and increasingly seem to

[181] The range represented by the Sothi-Siswal complex itself is quite diverse and includes a 'bowl-on-stand' as well. The

replace these as distinctive table-wares by a period early in the second millennium BCE. The dish types are made in Red slipped wares and increasingly in a range of variants in the Black slipped ware which as noted above is subject to a series of refinements in the slipping and polishing technologies. Here there is clear evidence of the Black slipped ware being a principal fine ware and tableware in this ware is constituted additionally by pedestelled bowls and a very distinctive tumbler / lota type which is unique in its morphology. Additionally it must be stressed that it is within this large realm the dish type remains as something of a constant while regional groups like the Narhan complex produce short-lived but extremely distinctive fine wares in different forms. Additionally, it is important to note that a dish type produced in the B&RW has a variable and ill-understood distribution across the eastern complexes.

By the year 1000 BCE it is clear that dish types are perhaps the central element in table-wares across all parts of North India which are being considered. It is in this context that I see to locate and define the emergence of the Painted Gray ware as a distinctive group which is defined by the high and thin walled bowls, the lota type vessel and a distinctive class of dish types characterized by a sagger, or rounded base and the distinctive paintings in black. Given the evidence from the excavations from Bhagwanpura where the culture is described in a context where it is seen to emerge slowly out of the previous milieu it is this assortment of forms which is taken here as the definitive and early PGW. The discussion of the culture shall proceed upon this assessment.

It is also important as a last theme to raise the issue of surface treatments and their variability in the context as this presents to us an avenue into discussing the technological choices and preferences which went into the production of the PGW. The distinctive tall and thin walled bowls are often slipped and polished and the designs in black pigment seem to be applied over this surface. The dish types on the other hand quite often seem to have been produced in such a manner that the plain, unslipped surface presents a surface which is considered finished enough. This is an important element in understanding the manner in which the find of dish types can be attributed to the PGW, especially as the production of dish-types is a wide-spread practice and is often found in BSW and GW in other regions as well. An additional consideration is the application of the distinctive painted designs which appear to have been made post-firing in most accounts, but it is clear that far more complex decoration strategies were known within the complex. From Hastinapura types are described where a strategy of painting under the slip or in the words of the excavator ‘by stopping the slip and picking out the designs’ is also known in selected specimens.[182] This technique is not

[182] It is important to note that at Hastinapura, which remains one of the most detailed descriptions of the range of decorations in the PGW, only one such specimen is reported and further the type does not seem to have been quantitatively extensive at any of the subsequent excavations.

witnessed in any statistically significant number of sherds but it is important to document for a number of reasons. This is a form of decoration which does not appear to have been part of the Harappan tradition. Instead, similar forms of under-slip of between slips decoration is known extensively in the eastern complexes and in the context of the increasingly refined BSW.

A final discussion must consider the manner in which the PGW types are said to have been fired, which has usually been understood as some form of sagger kiln, or a restricted and closed kiln so that the reducing atmosphere could be produced and controlled. It is extremely unfortunate that the excavations at Jakhera did not extensively document the full and elaborate potters workshop and house complex which they excavated as this could have provided many answers and insights into the ceramic traditions which are involved in the production of the Painted Gray ware.

In the case of the associated Red Ware, it may be argued that a comprehensive re-evaluation is needed in light of the documentation of the mosaic of other contemporary cultures now known for the late second and early first millennia BCE. I argue that many of the types which were considered definitive of the PGW associated Red Ware in the 1950's can now be demonstrated as common to wider world of plain wares and utilitarian cooking and diurnal use ceramics across the Ganga basin. Given this, it would require a major effort to compare and contrast the assemblages which would have to be based upon the actual recording and examination of the ceramics and cannot proceed from an examination of published reports alone. As the thrust of this dissertation, in terms of fieldwork and museum-examination was upon the middle Ganga basin, a full examination of the PGW associated RW could not be made but a few observations can be made on the basis of a preliminary examination of the Hastinapura ceramics curated at the Central Antiquities Collection. The presence of jars with a carinated neck and flaring featureless rims is perhaps the greatest marker of the elements which this ware shares with other assemblages. The presence of a range of basin types is something again which is a major trend in all assemblages of this period, one which especially appears to be significant when contrasted against the ceramic assemblages of the Harappan tradition. While this was not quantified nor was it possible to examine this in as much detail as I would have liked, it appeared that the construction of these basin types themselves, in terms of the rims they are provided with, seems to differ in significant ways from those known from the Kakoria-Koldihwa complex and elsewhere. In contrast there do appear to have been some extremely distinctive massive storage jar types which may have been more specific to the assemblage than have hitherto been considered and may represent a significant marker.[183]

[183] The types referred to here are the types describes as Type X and Xa of Fig.11 of the Hastinapura report.

A hypothesis on the cultural patterns represented by the PGW

In an attempt to try and build a synthetic hypothesis between the myriad fragments of this culture it appears to be in no doubt that there is a significant association between the PGW and the late Harappan tradition. This is made evident I argue from many indices, only one of which is the excavated documentation of overlap between the two periods.[184] Perhaps the most significant other indicator of continuity in this episode of cultural change is the regional settlement pattern which significantly suggests re-ordering and continuity as well as expansion. The nature in which much of our evidence is at present, however, prevents us from developing any detailed description of the change in these settlement patterns as it is not precise enough in terms of geo-spatial content nor does it provide us with any data on size estimates for these regions. Nonetheless the settlement pattern itself is replete with markers of continuity and provides perhaps the strongest argument against any nature of migration of a wholly new cultural group into the region.

It is argued here that the Bhagwanpura evidence perhaps represents one of the earliest manifestations of this cultural group and is perhaps indicative of the broad region within which it is produced. The fact that the site itself is disturbed by major floods on two occasions is perhaps a good entry point into a discussion of what was perhaps one of the major factors of cultural change over the second millennium BCE. The major transition from extremely large and 200 Ha plus settlements in the Integration era – Mature Harappan period to a settlement hierarchy marked by a much smaller range of settlement sizes has been known for the post-Urban Harappan period. As was argued above, I believe the cultural transition to have been overstated and not based upon the consistent evidence of medium to even large sites during the 'Post-Urban' sites many of which continue to provide evidence for a range of craft activities, most prominently including those involving the production of faience. I argue that the unknown and ill-understood cultural dynamics of the post-Urban Harappan phase which is likely to have constituted a number of cultural groups as represented by the 'Bara', 'Degenerate Siswal' and the many clusters labelled as 'OCP' would have had a significant impact upon the emergence of the Painted Gray Ware. I believe the variability in PGW assemblages, or their representations as understood and reported during surveys has demonstrated this in many ways. The disconnected nature of the evidence and the still unclear relation of its many parts necessarily make this hypothesis extremely tentative, nonetheless it is an important step in breaking down the monolithic idea of this cultural group which is so seamlessly linked up in a unitarian fashion to migrations of Aryans by the meta-narrative.

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[184] For the sake of recapitulation such evidence has been reported from Bhagvanpura, Dadheri, Katpalon, Manda and Sanghol.

The fact that the transition at Bhagwanpura is slow, prolonged, negotiated over some 14 levels and 3 metres of occupational deposit and is marked by both the presence of what appear to be unique elements and equally by the absence of others, which are understood as later suggests a strong possibility that the creation and origin of this ware, and the changes it represents may have occurred in the Haryana- Punjab region. The unique markers at Bhagvanpura are the presence of a range of gray ware types which may be understood, perhaps, as transitional elements towards the production of fine wares fired in reducing conditions. Bhagvanpura is currently the only known site which has provided documentation for the a plain and thick Gray Ware, Burnished thick Gray Ware, Black Ware and a most distinctive Hand made thick basket impressed Gray ware from transitional levels with certain elements continuing alongside the PGW when it appears. Bhagvanpura equally does not reveal any evidence of Iron[185] nor of any Black and Red Wares which are known from other sites in the Punjab and Haryana region.

It would appear from the Bhagvanpura evidence itself that these processes are slow and are played out over a long period of time and thus the spread of PGW assemblages across even the areas of Punjab and Haryana may have a complex chronology. This range of transitional wares has not been described from anywhere else and in the lack of other such comparative evidence it remains difficult to build seamlessly upon a presumed origin in the larger area around Bhagvanpura. In the absence of this it appears that the valley of the Ghaggar is the most suggestive link given the distribution of a number of PGW sites on its banks. It is clear that over the course of the second millennium BCE there are major disruptions in this river and this entails a desertion of many of the known settlements in this region. Two substantial indicators exists which allow us to describe aspects of this process. In the Bikaner and Cholistan areas, there are a known cluster of sites which display a peculiar relationship to the known Harappan period sites in the area. As displayed by the pair of sites named Chak 86 and Tarkhanewala Dera pairs of Harappan and PGW period sites often appear separated by small distances such as a few hundred metres. Another observation appears to have been made about the trend of PGW period sites to often be settled upon the very channel bed of the old river. While comprehensive assessment of settlement trends from this region is still not possible it is evident that there is a profound reduction in total numbers as well as in settlement size. It appears that while disruptions in the Ghaggar clearly affected settlements a much reduced

[185] The subsequent section shall argue for a need to qualify the idea of the presence and absence of Iron in the Ganga Basin and shall review the evidence for the 'Iron age'.

population continued to live in the area, and specifically chose sites which were previously settled to build settlements nearby.[186]

This pocket of PGW sites is important and has generally presented a bit of a problem to the manner in which the complex has been considered as it lies far outside any purported or construed geography of the Later Vedic texts. Archaeological considerations too have noted that it is an important cluster, seemingly discontinuous from others and marked by cultural specificities. Tripathi's assessment is commendable for she highlights early and largely forgotten evidence from A.Ghosh's excavations at Sardargarh which documented the profuse presence of a distinctive ware at the sites. This ware is known primarily from globular pots and is known from impressed designs, in the form of a 'mat' and more distinctively in the form of spiral designs which appear to cover the whole body. The quantitative presence of the ware seems to have been impressive enough for Ghosh to have considered it distinctive of the complex.[187] It is often forgotten that this ill-known, scarcely published but highly distinctive ware was also found at the excavations at Ropar, but it does not seem to have been distributed with such preponderance.[188]

It is even from such fragmentary and ill-recorded evidence that a picture of different complexes does seem to emerge in the consideration of the PGW. Linked by the Ghaggar, and both appearing to be early on the same grounds, these two clusters are perhaps amongst the earliest complexes which emerge. The evidence of the spiral impressed red ware suggests that they may not have been as discreet as appears and that the obvious linkages may have represented other extant patterns of communication and exchange. I argue thus that the expansion of the Painted Gray ware in its earliest phases is probably best defined around the Ghaggar river and may have existed in Pockets alongside its course as well as away from it in the Punjab and Haryana regions. In fact by what appear to be the trends documented by the irregular and piecemeal surveys in the Punjab area, the PGW period may have in fact represented an overall growth in a total number of settlements, thus representing a wider occupation of the landscape.

These distributions are perhaps also paralleled by sites known in North-Western Uttar Pradesh such as Hastinapura where a generic OCP was described as underlying the PGW period with a significant break as marked by a barren layer. This barren layer has been debated on widely, and has been

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[186] It appears clear in the case of Chak 86 and Tarkhanelwala Dera that the inhabitants of Chak 86 (the PGW period) are known to have scavenged precious materials from the Harappan period site of Tarkhanewala Dera
[187] A. Ghosh, 'The Rajputana Desert – its Archaeological Aspects', Bulletin of National Insitutute of Science of India, No. 1, 1952
[188] R.C. Agarwal, 'Painted Gray ware from Rajasthan and its relation with Black and Red ware', in R.C Gaur (ed.), *The Painted Gray Ware: Proceedings of a seminar held at Aligarh Muslim University* (Jaipur, Publication Scheme, 1994)p.75

commented upon by a whole range of specialists, including geologists and as wide a range of hypothesis from Aeolian deposition to the original suggestion of flood deposits have been made. I consider this example representative of the disinterest of Indian archaeology towards geology and geoarchaeological questions and put the confusion and the rather needless debate down to the association B.B. Lal drew towards the flood legend in the Mahabharata (for the case of the break between the PGW and the NBPW) and the unwillingness of commentators to accept this. I argue here that the entire section of this region from Meerut to Bareilly, i.e. from Hastinapur to Ahichhatra is one which too may have been part of an early PGW zone, one which in the future may demonstrate significant linkages to the preceding culture. It is notable that the rivers of the region and the major ones which appear to have been at the centre of early settlement hierarchies in the area, such as the Budhi-ganga, Ganga, Ram-Ganga and the Kali Nadi all seem to document some record of larger throughput and flooding during this time-frame. Large scale floods and channel re-organisation is not a well understood process for these rivers; nonetheless it appears from the case of the Ram Ganga that neo-tectonic control has had much to do with its hyper-avulsive activity and patterns of changing courses over the last 500 years.[189] It appears significant that so many of the sites under consideration have such evidence of large scale floods and it is possible that more precise dating of these deposits themselves may yield significant evidence about their chronology and inter-relationship.

In recent years Chakrabarti's surveys have done much to establish that the 'Late Harappan' / 'OCP' settlement in the region is more widespread and difficult to delimit than was previously thought. While no sites have demonstrated any continuity or overlap between occupations I suggest in light of the continued or reoccupied presences at many of these sites, and an additional proliferation of PGW sites in these areas a very similar pattern to that of the Punjab and Haryana pertains in the region. The only new excavation in the last ten years in this region, in the northern areas of district Shahjahanpur, has been that of the site of Saunphari[190] and it has provided complex evidence which suggests that alongside the classic PGW, an assemblage of Gray Ware Black Slipped Ware and an Orange-red slipped ware were present in the early period alongside a small quantity of a cord impressed Red Ware as well as few sherds of the channeled/ rippled ware. Saunphari has also clarified that the existence of Black and Red ware in the PGW assemblages of this period is one which belongs to a later phase perhaps even alongside the NBPW phase of overlap. The other excavated site in the region, near Ahichattra and Bareilly is the site of Abhaipura, the publications of which are still brief but significantly report the find of two burials from the PGW complex, again an

[189] Roy, N. G. and Sinha, R. (2007) Understanding confluence dynamics in the alluvial Ganga-Ramganga valley, India: An integrated approach using geomorphology and hydrology. . *Geomorphology*, 92/3-4, 182-197

[190] D.P. Tewari, *Excavation at Saunphari and Exploration in Ganga plain*, (2004, Tarun Prakashan, Lucknow)

manifestation of the cultural complex which has not been apparent otherwise. Cemetery complexes and burials in the Haryana, Punjab and Western Uttar Pradesh region have been known extensively from sites and cultures pertaining to the Harappan tradition and the combined evidence from Bhagwanpura and Abhaipura is now being understood as a further stage in the gradual attenuation of burial practices.

I suggest here that it is these four broad regions, of the Bhagvanpura area, the distributions along the lower reaches of the Ghaggar valley, the areas of Punjab which are further included into this zone and the North-Western areas of Uttar Pradesh constitute an early and core area of the PGW complex. Within this extremely large area there shall no doubt be histories of expansion and extension but these can only be revealed by more excavations and precise absolute dating programs which shall help clarify the succession of cultures and their contexts.[191] This is a matter which requires urgent attention as one of the few recent dates for the Painted Gray Ware complex in the area has yielded a date of 1739-1706 BCE from one of the lower levels of period IA at Saunphari.[192] If this date is actually representative its potential for overhauling much of what we understand about the settlement patterns of the Ganga plains should not be underestimated. Even as more dates are required, preferably from a host of sites, what the evidence from Saunphari does demonstrate is that there the PGW using societies are long-lived and complex and that their expansion over this large period may indeed bear a chronology which does not match up to the expectations of the meta-narrative.

This emphasis on long chronologies may be helpful in understanding the chronology and interaction with which the PGW using cultures seem to interact with. I argue that it is essential to premise our understanding of the larger regions of the Painted Gray ware culture in such a manner otherwise an insistence on a reified notion of the PGE period elides away much of the complexity of the cultural changes and diversity which is in evidence. Before this discussion turns to regions to the south of the aforementioned hypothesized primary zone of the PGW it is important to consider a range from the regions to the North.

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[191] This is mentioned particularly as the seminal excavations of Hastinapura, Alamgirapura adnd Ahichattra were all conducted either before the invention of C-14 methods or when these techniques were in their nascent stage and had met with few applications in the Indian context. It is unfortunate that the of the two dated samples from Saunphari one yielded a date of 4940-4867 BCE Calib (5950±100 BP) and the only date from the region, Madanapura has also yielded a date to the fifth millennia BCE. The excavator of Sunaphari, D.P. Tewari duly notes that he feels these date are far too early. The presence of early charcoals in the region, if the dates on the samples are true, nonetheless, implies a much earlier presence in the landscape than has hitherto been documented, something which was suggested as possible in the discussion above on the mesolithic. D.P. Tewari, *Excavation at Saunphari and Exploration in Ganga plain*, (2004, Tarun Prakashan, Lucknow)

[192] *Excavations at Saunphari*, p.256 This sample was actually selected from levels much further below the sample which yielded a date of the fifth millennia BCE above.

It is often forgotten that amongst the arguments for an overlap between the PGW and the Late Harappan J.P.Joshi included his evidence from the site of Manda in Jammu, where there was no PGW but only the associated Gray ware. As no further details have been published from these excavations it can only be argued here that this may be an important consideration to make for the location of the PGW in wider trajectories of Gray wares which are known to precede and succeed upon it for long periods of time, a consideration which is particularly important for considering the time periods to which sites can be allocated on the basis of surface surveys.

Far more definitive and challenging evidence comes from the Uttaranchal hills where there is the known excavated presence of the NBPW from a range of sites in the river valleys of many rivers, often situated in locations which are near the confluence of mountain rivers and most often in the 1400 – 1600 meters above sea level elevation zone. The classic forms of the PGW are known and this complex is known to have been devoid of any presence of the Black and Red ware. The most defining association of this complex is its relationship with a megalithic complex, which is known extensively from large burial fields, like in the Jainal-Naula area as well as what appears to have been cemeteries which accompany sites, such as those at Sanana and Baseri.[193] The megaliths are not described as having been monumental in any sense and are usually cists set into the ground with occasionally massive single capstones. The cists are known to also occasionally have involved the excavation of a pit into the bedrock and furthermore are supplied with a range of grave goods in terms of ceramics. Inside the cist, mortuary remains are usually placed in an Urn[194], although apparently a case of direct burials is also known.

The dates for this complex have been extremely varied and range from the third millennium BCE through to 200 BCE and a weak consensus suggests a date somewhere in the range of the early first millennium BCE. At the very outset a few clarifications of the association of this complex must be made: while classic and typical PGW assemblages have been known from excavations, best documented at Thapli, the grave goods have never yielded any PGW and instead have been furnished with plain Gray Ware and Red Wares which are not completely published and one suggestion has compared them to the known ceramics of the early historical period of the region, i.e. c 200 BCE. This opinion is an important indicator of just how wide the chronology of these monuments can be and the picture can be complicated further by reflecting upon other known and surmised cultural occupations of the Uttaranchal hills.

[193] IAR 1993-94, p.89-90

[194] From the descriptions alone it appears that these Urns have been provided with a form of rippled and channeled decoration, but an identity with the type which has been brought up repeatedly in this discussion cannot be suggested until further documentation and actual comparison of specimens is done.

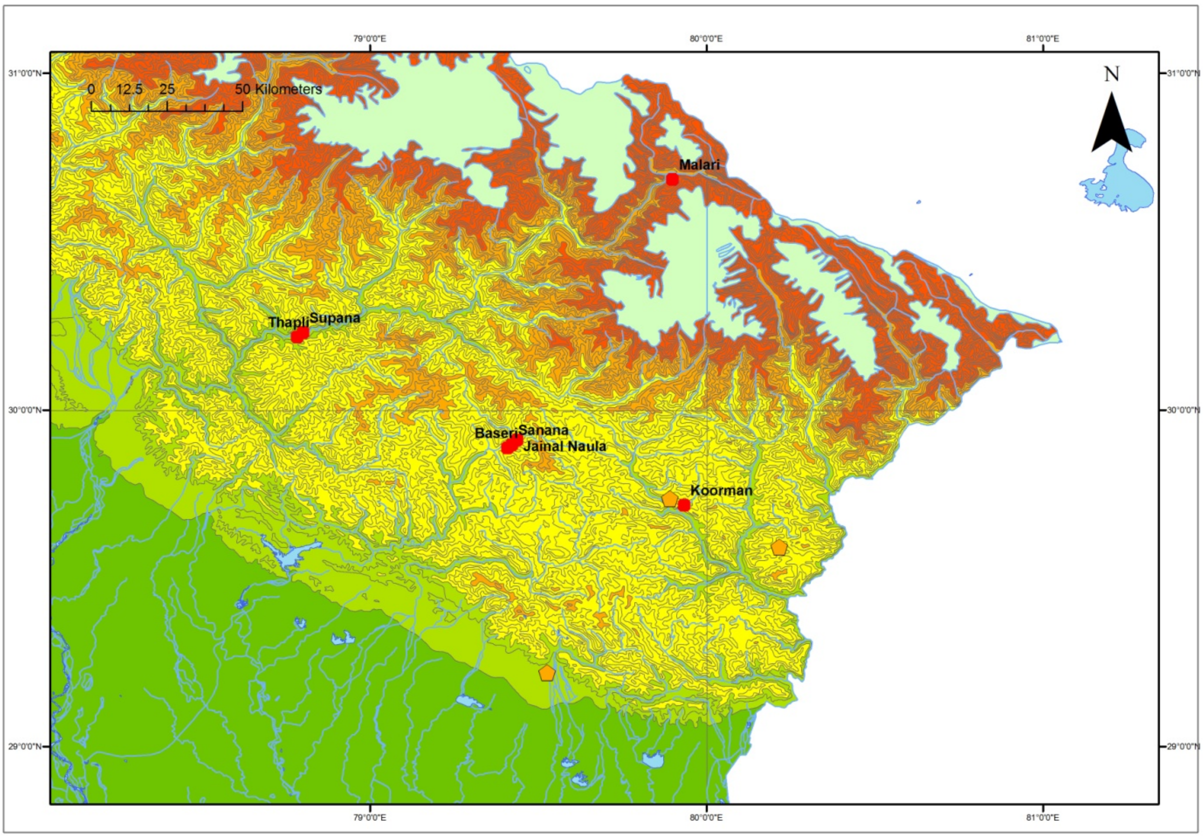


Figure 17 A map demonstrating the distribution of the Uttaranchal Megaliths and the Uttaranchal Copper Hoard sites

While each of these instances has been compromised by a lack of a clear absolute chronology it is clear that a number of cultures have been in evidence in the Uttaranchal hills since before the distribution of the complexes which were discussed above. The most eloquent evidence for such an occupation has in fact been revealed from some of the graves at Sanana as well as those from other sites, such as Srikot[195], which have yielded ceramics which are clearly not associated anywhere else with the PGW. These have included most prominently types described as the 'Red Ware bowl with pedestal base' and a 'Globular goblet'. The excavators have found favourable comparison with the Gandhara Grave culture, but equally perhaps parallels are also possible with Early Harappan assemblages which are considerably closer and known to have extend till within reach of the foothills.[196] Such connections and linkages are made even more stark by the fact that it has long been suggested that an alternative source for the Copper Hoards may have been located in the known pockets of mineralization in the Uttaranchal hills. This suggestion has recently found more

[195] IAR 1992-93, p.89-90

[196] D.K. Chakrabarti, documents sites such as Chamarpur in Moradabad district which are described as being of the Harappan tradition and it is clear that the region near the foothills was part of the settlement patterns of these periods. Chakrabarti, *Archaeological geography of the Ganga plain : the upper Ganga (Oudh, Rohilkhand, and the Doab)* (New Delhi: Munshiram Manoharlal Publishers, 2007)

support in the recovery of a copper hoard with distinct anthropomorphs in the Pithoragarh region. Additionally, the recent excavations of the copper Hoard at Madarpur is again not far from the foothills and appears to be linked along routed heading from the hills to the plains. Thus it appears that while the Rajasthan area and the post- Ganeshwara-Jodhpura complexes have often been thought to have been the principal areas for the origin of the anthropomorphs and the copper artefacts of the Ganga plain, there may have been indeed a number of different origins and sources for them.[197]

Additionally, there are still further cultural complexes which are known from Uttaranchal. Malari, a site located at an elevation of over 4000 meters above sea level and on route to one of the few passes into the Tibetan area is important even if its excavations conducted briefly in the 1960's have been very ill-documented. It appears that this site yielded the evidence of an elaborate Horse burial alongside a hitherto unknown ceramic assemblage known from a range of vessels, which included distinctive pedestelled and spouted forms. At present it cannot be attributed any date although the excavators suggest it is a protohistoric assemblage.[198] A more widely distributed cultural presence is the widespread occurrence of rock art in many overhangs and caves in the Uttaranchal area. The cultural associations of these shelters has not been established an analysis of the rock art itself and its comparisons with other known regions suggests that it is an early complex and one which is a significant marker in the history of settlement in the region.[199]

Thus, the painted Gray ware arrives into what is an ill-understood and yet clearly complex cultural landscape. The only marker of continuity here seems to be in the practices of the memorialisation and burial of the dead and the site of Sanana seems important as the excavators have here suggested continuities with both earlier ceramic traditions such as the Gandhara Grave and the PGW assemblages of the doab. While the evidence, which is not detailed from a sole site and is in a region not well understood, I argue here that the presence of the Painted Gray ware in these sites is representative of a larger integrative phase where peoples of other cultural traditions than the one in which the PGW was originally and initially produce adopt and start using the distinctive fine wares. Other implications of such cultural process can only be hinted at and it is wise to not overstate these nor too widely build upon a thin hypothesis. This is a hypothesis which is put forth over one of migration or simple diffusion, which have been the touchstones of explanation in Indian

[197] It must be mentioned that Randall Law has raised the issue of the region being a possible source for the Harappans of resources such as steatite which is known from deposits in the Almora region. Law, 2008

[198] Other grave goods apparently also included a gold mask of some sort. Excavated by D.P. Agrawal and by Gahrwal University, *IAR 1982-83*

[199] Yashodhar Mathpal*, Rock Art in Kumaon Himalaya*, (Delhi, Co-published by *IGNCA* and Aryan Book International, 1995)

archaeology as it is appears to not only explain the evidence better, but provide for a more diachronic and complex explanation which integrates what appear to be extant and previous documentation of networks and connections. This is paradigm which is also applied to the Uttaranchal evidence because it is powerful in explaining the evidence in other regions.

The Agra-Mathura-Bharatpur region represents an area where there are a large cluster of reported PGW sites and it can be expected that more would be revealed by a more intensive survey method than jeep-survey. Similar is the case of the districts immediately across the Yamuna, which are the Etah, Mainpuri, Farrukhabad, Etawah and Firozabad. I define this zone here primarily because this appears to be an area which shares a cultural horizon in the period just prior to the coming of the PGW. This is best documented at the sites of Noh[200] and Atranjikhera[201] which are both at extremes of this complex and it would appear that it may extend beyond the zone defined as well. This cultural horizon was not discussed independently and separately principally because the information published on it is unfortunately negligible and can be summarized easily. The excavations at Noh, which remain unpublished documented a culture which was located stratigraphically between the periods of the OCP and the PGW and this was described as being dominated by a plain (not painted) Black and Red ware which was prominently known from fine Dish and Bowl types which were described as distinctive and completely different from the Black and Red ware shapes of the Ahar-Banas complex. While the Noh evidence has remained unpublished in any great detail the excavations at Atranjikhera yielded a similar cultural sequence and the excavator commented upon the Black and Red ware as one which was "not known from elsewhere".[202] The excavator tentatively suggested the same hypothesis as being made here.[203] The site of Jakhera, close of Atranjikhera seems to have suggested a similar situation with the ceramic assemblage presenting a more diverse and perhaps more representative assemblage of associated Red wares and Black Slipped wares.[204]

[200] IAR 1963-64, p. 28-29, IAR 1964-65, p34-35, IAR 1965-66, p.38, IAR 1971-72, p.42 are the major reports for the site

[201] Gaur, R. C. *Excavations at Atranjīkherā : early civilization of the Upper Gaṅgā* Basin (Centre of Advanced Study, Dept. of History, Aligarh Muslim University ; Delhi : Motilal Banarsidass, c1983)

[202] Gaur, R. C. *Excavations at Atranjīkherā : early civilization of the Upper Gaṅgā* Basin (Centre of Advanced Study, Dept. of History, Aligarh Muslim University ; Delhi : Motilal Banarsidass, c1983)

[203] It must be noted nonetheless that R.C Gaur at various points in the report brings up the evidence from Gilund and Ahar as frequently as he does for Noh, and thus his position on the origin and affiliation of the Black and red ware cultural period remain vague and unclear. This may be seen as best represented alongside other problems thrown up by the complex in the manner in which S.Nurul Hassan summarized the evidence in his preface: '… This was followed by the settlement of another people whose characteristic pottery was the well known Black and Red ware. These people might have been migrants from Central India who either came and settled down at Atranjikhera or visited the site in seasonal migration year after year'. p.ix, *Excavations at Atranjikher*a. Note the unitary visualization of the B&RW and its supposed associations.

[204] Additionally a class of storage jars has been described from Atranjikhera in a thick, crude and plain Black and red ware.

The most definitive aspect of this preceding culture seems to have been its fine wares which while being undecorated have been commented upon for their fineness and lustrous finish. The ware can equally be defined around what have been called the 'carinated bowl' types which are truly a marker of this culture and have not been reported from any other culture. The fine wares also apparently include a class of dishes which appear to have been known in a range of variants and constitute an important and distinctive group, considering the relative concentration in other regions of producing the dish types in Red, Gray or Black slipped wares. This period is attributed to c.1450 to c1200 BCE at Atranjikhera by the excavator and a postulated transition to the PGW is attendant upon this, a transition which is notably documented at all sites as one which is continuous and not marked by any break in cultures.

The nature of this transition is apparently rapid and considerable. As Figure 3-16 (p.195) demonstrates for Atranjikhera the position of the fineware of the previous period is entirely and rapidly displaced by the adoption and production of the Painted Gray Ware. While the individual sub-phases are not dated and there is no statistical data on the Black and Red ware phase to compare against, the change is manifest most starkly in the complete absence of the distinctive Bowl forms of the Black and red ware and even the dish forms are now limited to a few variants. The evidence from Jakhera, while not quantified also suggests similar trends.

The presence of two excavated reports from this region allow us to be able to characterize this complex of the PGW better than others. What is perhaps most striking is the fact that two considerable settlements appear to have been made close by, Atranjikhera is 23 km downstream on the Kali Nadi and on the opposite bank than Jakhera. These two sites together have produced what is perhaps some of the most vocal evidence for the emergence of clear craft and specialized economies during the PGW period. The fact that three pottery kilns and a major pottery production complex associated within a house from the sites are only one of the few important markers of the craft production regimes in this complex. It appears that the sites not only continued to receive agate and jasper beads but the presence of chipped stones suggests that there may have been some processing of stone if not further bead production at the sites. In terms of pyrotechnology, clearly specialization and demand have reached a stage where some form of metal processing, it would appears to be in both copper and Iron appears to have been performed at the site albeit in small quantities. Additionally, two gold objects have been found at the site, something quite unique for the PGW complex and further sourcing studies may reveal interesting evidence about the possible area of origin of those artefacts and the connections and forms of exchange they imply. It would appear that they form It also appears that other changes are underway, a whole range of pottery

and terracotta discs, many of which are elaborately decorated have been recovered in numbers, some of which from Jakhera at least are documented as bearing painted designs. This complex also further documents the presence of glass beads and bangles at PGW sites, something which is known to have been common, but no known production centre or techniques have been established as yet. Both sites also clearly display that known cycles of the transport of grinding stones and querns is visible and have documented a few examples of the same in sandstones.

The pair of sites also document evidence for the manifestation of some forms of architecture which are beyond the domestic At Jakhera, excavations are known to have documented a ditch of channel running alongside the site for over 40 metres, interpreted as a feature meant to protect the site from the Kali Nadi. In terms of complexity and in terms of the processes of specialization I argue here that this complex presents a picture which is considerably different than the dominant incipient village like settlement which has generally been taken as definitive for the PGW complex. The transition to the PGW and the synchronous changes in terms of networks and the range of consumable goods which are being produced at the site indicate and characterize the site and the period as being one of considerable social complexity. The questions of how these changes are related to other such changes in the wider PGW settlements is something which cannot at present be answered but these may represent and evidences which are complicated and not synchronous. In other words, the complex defined here seem to be unified by the strong integration of a previous cultural group into the world of the PGW assemblages, and into a period where two of the documented sites display considerable trajectories of growth and attendant social complexity.

The next zone in which this discussion now considers the existence and distribution of the PGW is the area of the Kanpur to Lucknow region, where in both areas, substantial distribution of the Painted Gray Ware is known. In Kanpur particularly, due to the surveys of L.M Wahal and Makkhan Lal and more recently by Rakesh Tewari et al a greater number of PGW sites is known than from anywhere else at the district level. As was argued above (p. 163) this zone is one which had seen a considerable occupation from the second millennium BCE onwards in the form of a cultural complex that appears to have been closely related to the Vindhyan complex. It is in this complex, that the Painted Gray Ware is known to arrive and the subsequent period at all sites is labelled as the PGW period upon which a period of the Painted Gray Ware overlap with the NBPW is documented. These are labels which appear to bear a commonality with the other areas of western Uttar Pradesh, Punjab and Haryana which have been discussed earlier. However it is argued here that the use of

these labels has actually masked an important record of the manner in which change is manifest in the cultural record.

A first indicator of the trajectories of change is marked by what appears to be a divergence in broad terms between the Kanpur and Lucknow region. A stark record of this change is manifest in the identification of sites of the late second and early first millennia BCE; in Kanpur district alone 53 sites are known from surveys as belonging to the PGW period while such sites number just 4 in the Lucknow area. The reason for this does not lie in any demographic discrepancy or different trajectories of growth, rather it has to do with the manner in which and the variable ways in which the PGW culture integrates with and incorporates within its fold different cultural groups in different zones.

It is extremely unfortunate that the quantification of ceramic assemblages in India is a task which has rarely been performed as it would have perhaps demonstrated the processes at work here the in a truly representative manner. While a number of early sites have been excavated in Kanpur district it is unfortunate that a full ceramic report is not available for any of them. For those where the PGW has been encountered in excavated contexts sadly no publication of identified forms has been forthcoming and this further limits our ability to characterise the manner in which this area fits into the world of the PGW. Nonetheless, the density of sites, and their clear recognition during surface reconnaissance is itself a proxy of the density of materials at a site and suggests that the integration of the Kanpur region into the PGW world was of a significant order but one which cannot be clarified further until fuller publication or renewed excavations ensue.

In contrast for Lucknow at least, we have stronger evidence which while not being strictly quantitative is in the form of anecdotal appreciations of the variability in wares made by the excavators. At Dadupar for example the excavators note the presence of a few PGW forms which are shapeless and thus cannot be used to arrive at the original form of the vessel. At Hulaskhera, which was excavated for every season in between the years from 1978-1979 to 1986-87, the evidence, from a very large area is even more striking. The excavators record the presence of a very limited amount of the fine Gray Ware and precisely two sherds each of the PGW from both the phase which is given its name and the subsequent phase of overlap with the NBPW.[205] Clearly, this is a case where the PGW is found in exception to the dominant trend of overall continuity at the site in terms of its ceramic assemblage. Clearly, there are a range of possibilities in which the PGW can arrive at a site like Hulaskhera, which has been argued to have been a large and growing settlement even in that

[205] Again these sherds are noted to have been so fragmentary that no idea of their parent vessel shapes could be ascertained.

period. Exotic wares brought in exchange or brought by actual users as marker of identity are all equally probable given that there is no record of the spatial context of these finds from any of these sites and no record of whether their associated findings shared any such traits which were at odds to the general assemblage of Hulas khera or in harmony with them.

It is in this context that the excavations at Sankissa conducted by B.R. Mani and the Excavation Branch –II of the Archaeological Survey of India are significant as they too have documented the presence of the PGW amidst an assemblage which is not defined by the usual associated wares. Here too an assemblage of a RW, BSW and a B&RW accompanies the PGW but is marked by elements, especially in the period of the transition to the NBPW, which appear to suggest that processes of cultural change and continuity can possibly be divergent at the same site. As Mani documents, apparently only in certain areas of his site, was there a conspicuous record of forms which seem to relate to the Kakoria-Koldihwa complex such as the funnel-shaped lid and vases with prominent cord-impressed marks. As Mani himself comments: 'The importance of the excavation lies in the fact that this great city site has never been excavated earlier scientifically and no proper record of the exposed structures and antiquities or stratigraphy was so far available. It location in a zone where cultural trends from different area might have influenced the inhabitants during the protohistoric times '[206]

Another area where considerably complex cultural successions seem to attend upon some form of interaction with the PGW zone is the area of the northern districts of Madhya Pradesh namely being those of Bhind and Morena. Here it appears from the recently excavated site of Kutwar[207] that a situation similar to the adjoining regions may have been encountered. An assemblage of Cord impressed Red wares and Black and red wares alongside Black slipped wares has been located at the site and the entire assemblage is known to continue into a period where the PGW is known in a limited distribution. From the nearby site of Gilalulikhera[208] further complications are documented where while no Cord impressed wares were documented, perhaps owing to the fact of excavation in the 1980's when such details were not always recorded, it appears that in the general period designated as Protohistoric the assemblage seems to include forms which are associated with and reminiscent of the Malwa ware types. As detailed documentation has not been published for the site, it is impossible to comment on this further, but the situation is not improbable given the known distribution of the complex in the Chambal valley. Additionally Gilaulikhera raises issues of further

[206] IAR 1995-96 p. 89 – 96 The full report of Sankissa shall no doubt present a much fuller picture of the transformations at the site and any evaluation of the claims must be put of till then as no further publications have hitherto appeared for the site.
[207] IAR 1995-96 p. 47 and IAR 1996-97, p.64-65
[208] IAR 1981-82, p.33-34

complexity in the fact that the excavators suggest that no PGW was present in the period prior to the NBPW and that the two appear to arrive together at the site. This is possibly a marker of considerable complexity in the manner in which we consider the PGW and shall be considered below. This last complex though nonetheless appears to be a significant zone where the antecedent cultures seem to have had some form of interaction with the world of the PGW. Much of this is understandable in terms of the geographical contiguity which the area shares with the known major clusters of the PGW. Nonetheless, this discussion has addressed the fact that the region appears to be one where the Malwa culture and the Vindhyan complex may have been co-existing in close interaction and this is something that can only be addressed with the fuller publication of the sites which have already been excavated and by renewed and extensive surveys to map out what is clearly a complicated cultural landscape. I argue here that additionally a major element which is missing in this jigsaw puzzle of geographic zones is that of the district of Jaluan, which is the sole region in all of the 70 district of Uttar Pradesh from which not even a single site has been reported in the post-Independence era. This has been in large part due to the long-term presence of dacoits and lawlessness in the ravine-ridden still highly underdeveloped region. However, the geoarchaeology of the emergence of these badlands and the past cultural landscapes which they conceal remain a large question mark interrupting any hypothesis which can be made about the Ganga basin.[209]

I argue that this zone where we appear to have evidence for a zone of the shading off of the manner in which and the degree to which the PGW comes to dominate assemblages, seemingly order and structure other practices and come to be definitive. This is an important and necessary recognition and one which suggests important linkages to the manner in which we can come to consider the evidence from a host of other regions from which the PGW has been reported. For extremely long the presence of 'PGW' in zones outside of the western doab has presented, on account of its rarity and the discontinuity a major cultural challenge. Given that the presence of such wares has often if not almost always been thought of in solely diffusionist terms such outlying markers have usually been understood as markers of colonization and migration by a cultural group, or more bluntly by Indo-Aryans. I argue here that two main issues are at stake, the first which concerns the manner in which the PGW can be defined in the later period, and in the absence of the diagnostics which this period defined. The second major issue follows upon this and considers the arguments from the outlying distributions and asks whether all decorated gray wares are in fact *the* 'Painted Gray Ware'.

[209] For a geomorphological appraisal of the neighbouring region in distirct Kanpur Dehat see Sinha R., Madhur Khanna, V. Jain and S.K. Tandon (2002). Mega-geomorphology and sedimentation history in the Ganga-Yamuna Plains, *Current Science*, vol. 82(5), 562-566 This study was conducted without the knowledge of extensive early historic and formative period landscapes of the region, especially as centred upon the site of Musanagar and is a region where geoarchaeological studies may have a lot to contribute in the future.

Again it is unfortunate that we have all but two comprehensive descriptions of what appears to be something which is not just a manifestation of a limited or contained phenomena but a repeated and almost universal trend of the overlap of the PGW and the NBPW. This is a trend which has caused much confusion about the chronology of the two wares and has really never been subjected to any considered evaluation. The most recent hypothesis on the emergence of the NBPW and the distribution of the PGW considers this as a facet limited to areas like North-western Uttar Pradesh where the use of the PGW has been repeatedly argued to have had longer chronologies.[210] I make two arguments here, firstly that in all zones where the PGW appears to have had a strong and quantitatively significant distribution there is equally considerable evidence for a period of overlap with the NBPW. This applies to the few sites in Punjab and Haryana where the NBPW is recovered, through to the sites of Atranjikhera and Jakhera and even in northern mid-Ganga plains at Saunphari. Thus the feature of the overlap period must be considered as symptomatic of the complex and not as an exception occasioned by atavistic practices at a few sites, as has been the opinion of this blurring of culture-historical lines. The evidence from both Atranjikhera and Sonkh further suggests that this is not merely a period of continuing ceramic traditions, and the decorated and painted Gray ware types themselves undergo definite if discreet patterns of change.

While at Atranjikhera the ware is still described as one of fine fabric, at many other sites a marginal deterioration in the preparation of the paste and in the execution of thinness of the vessels has often been noted. What is most striking about the detailed catalogue from Atranjikhera is the fact that while a small percentage of forms and designs in both the bowl and dish types seem to continue into this later period, they are in a minority amidst a larger group of new forms on both count. By and large the bowls are now markedly more hemispherical and the dish types appear to seriate in a trajectory towards a much flatter base, as opposed to the rounded base of the typical PGW dishes in the preceding period. The trend is also visible at Atranjikhera in the slow passing of the thin high walled bowls which do not appear to have been found in the later period, although Gaur documents a number of forms which appear to approximate them. The evidence from Sonkh is similar and documents a complex range of changes rather than one which is simply a documentation of the attenuation and retreat of a ceramic tradition. It would appear here then that defining the late PGW is a problematic issue and may require further detailed study of the manner in which types can be told apart for these two different phases and whether such differentiation is of course possible or not outside of stratigraphic context. On the basis of the forms published the case does seem likely

[210] Takahiro Takahashi, Taizo Yamaoka, Fumitaka Yoneda and Akinori Uesugi, 'The Ancient City of Sravasti: its Significance on the Urbanisation of North India', *Puratattva*, Volume 30 (1999-00), p.74-92 , B.B. Lal, 'Did the PGW continue uptil Mauryan times' *Puratattva*, Volume 9 (1977-78), p. 64-81

but it is not clear whether in the lack of complete and representative statistical examination of an assemblage for both periods whether any great degree of confidence can be attributed to identifications made on the evidence as it stands today.

This picture is further complicated by the fact that in Haryana, Punjab and Western Uttar Pradesh, areas which shall in the subsequent discussions will be shown as areas which are peripheral to the distribution of the NBPW. These areas are marked by an ill-described series of gray ware and black slipped ware forms which have usually been described as being similar to the types which are known to accompany the PGW. The lack of description of these forms has meant that no real markers have been developed for measuring change across these periods and what appear to have been subtly changing bowl and dish assemblages have been glossed over. As shall be discussed in the subsequent section this has created considerable and entirely unaddressed problems of the manner in which surveys can hope to assign periods to sites as both the diagnostic PGW and the principal and definitive types of the NBPW associated RW are not so numerous so as to be encountered everywhere regularly. Thus, while many surveys do explicitly make clear where classic PGW sherds were recovered as opposed to only plain fine Gray Ware sherds the numbers especially for the western complex may mask considerable complexity and longer time periods.

If the task of defining the late PGW in the west is thus complicated by the presence of similar if not allied and derivative types similar questions in the eastern areas, outside the zones discussed above are complicated by the diversity of forms and range of types produced in the Black slipped ware assemblages. Some cases appear to be clear instances where although there is little evidence for widespread contact there are definitive interactions and connections. The early excavations at Sravasti by K.K. Sinha thus demonstrated the presence of the PGW, in its classic forms, of the tall and thin walled bowl albeit in what appears to have been singular numbers amidst an assemblage of Black and Red wares, Black slipped wares and Red wares. The subsequent and prolonged excavations through the 1990's by a joint team from Kansai University and the ASI however failed to corroborate such evidence. They note that the sherds of decorated gray ware dishes which they encountered are hard to classify as PGW and are termed as being imitation PGW. This is an interesting suggestion and one which is indeed plausible, yet I argue that in the case of the dish type and in an assemblage where dishes are produced extensively in a range of fine and plain Black slipped wares a more precise form of demonstration is required to establish that the potters intention was to mimic or copy specific PGW forms and decorations.

A clarification on the existence of 'PGW' in the Allahabad region

This is a position which is on more secure ground when we consider the evidence from the Kausambi – Sringaverapura zone, where both sites have been argued at different points to have yielded a form of the PGW. Lal's arguments about the connection between the Mahabharata and the PGW have often included the legend of the post-diluvian removal of capital from Hastinapura to Sringaverapura. Lal has on more than one occasion suggested that the presence of gray ware dishes which bear 'fugitive marks of paintings in black bands' suggest a degenerate and late form of the PGW which may represent this migration and vindicate the legend. I argue here that this is a position which is based upon the removal of a few artefacts from their context and their assemblages and shall now turn to a discussion of the place of these fragments in their contexts and attempt to demonstrate that very different processes may have been represented in them.

As the foregoing discussion has made clear the region under consideration here is one which is not implicated in an any manner in the distribution networks of the OCP cultures and thus the attributions of the oldest culture at Sringaverapura to this context is extremely problematic. As shall be argued in detail in Chapter 4 this is symptomatic of the unlinear construction of the meta-narrative and the inability to contemplate any other pattern of settlement and the coalescence of communities in the Ganga plain other than an imagining of migration and colonization by presumed Indo-Aryan groups. I argue here that the lowest levels of Sringaverapura serve as an useful representation of the manner in which the culture-historical project has been attempted and the very serious limits within which it chose to select its actors and agents. It is important also to stress that the details of these excavations are not published, the report on Sringaverapura which is in circulation is only Volume I of a proposed two volume set. The extant publication presents extensive description of the monumental tank complex which were unearthed and does not deal with any other period.[211] Furthermore, the key publication which has articulated he argument for the cultural sequence to begin with the OCP does not publish any forms for the site, nor does the report whose chapter on ceramics deals with the materials only of the period of the first five centuries CE.[212] I find it quite remarkable and symptomatic of the manner in which the ideas about the settlement of the Ganga plains have been generally understood that the description of the authors, while not being not only thin has not more generally been questioned.[213] Even at the very face of it, it would appear

[211] B.B. Lal, *Excavations at Sringaverapura* (1977-86), Vol. I, (New Delhi, Archaeological Survey of India: Memoirs of the Archaeological Survey of India: No 88, 1993)
[212] B. B. Lal & K. N. Dikshit 'Sringaverpura : A Key-site for the Protohistory and early History of the Central Ganga Valley', *Puratattva*, Volume 10 (1978-79) p.1-8
[213] The only consistent and vocal source of criticism has come from the author of the most definitive and comprehensive work on the ceramic cultures of the region and has specifically raised the issue of the lowest

that a Red ware containing dish-on-stands, channelled bowls and other vessels in an assemblage which also contained significant proportions of black slipped wares and black and red wares was simply not comparable to the OCP group of cultures on account of the presence of the other wares and the absence of the typical range of high-necked globular Jars.

It is clear that even for the excavators the case of Sringaverapura and its characterization as a cultural sequence beginning with the OCP was a tortuous one. To demonstrate this, it is most illustrative to quote from the yearly reports of the excavations. At the end of the first season, the excavators stress that "No PGW was found although in RW some shapes normally assoc with it alongside a BSW and B&RW and thick RW It remains to be ascertained if the thick RW could have had some independent and earlier horizon". Further they describe the presence of a fine Gray ware and some painted Gray ware in the subsequent period which is defined by the occurrence of the NBPW from the very start.[214] The description for the subsequent season is more detailed and comprehensive for the earliest periods as the excavations were able to proceed and expose larger areas of the lowest deposits of the site: "Period I confirms the independent presence of a RW industry two categories one made of a well levigated clay, nicely potted and well fired. There is occasional use of slip in both the varieties. A few specimens in the former ware have been found to bear painted designs such a simple lines or hatched diamonds in black pigment, A few sherds with horizontally raised bands and shallow incised designs including a comb like pattern, parallel lines etc. were also found types jars with prominently out turned rims bowl with featureless or everted rim shallow basins with horizontally splayed out rim vases with disc base and platters some of the fragments are suggestive of dish on stands with drooping rim and bowl or basin with channel or tubular spout and/or loop handles few specimens of which were either with central depression made by fingers or with a curved knob While it remains to be seen as to how far this ware compares with the OCW, it seems to have no typological connection with the RW reported from Kakoria in this region some plaster and mud huts one carnelian flake pottery discs with or without perforation".[215] I argue here that the last statement is one born of out of the unease which is experienced with the diversity and range of this assemblage. Further complexity to this assemblage is manifest in how in all subsequent publication it is argued that in all subsequent publications the Red ware is described as being associated with Black slipped wares and Black and Red Wares which are further strengthen the hypothesis that the culture is indeed one and the same as the Vindhyan / Kakoria-Koldihwa complex.

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levels of Sringaverapura. J.N. Pal, *Archaeology of Southern Uttar Pradesh: Ceramic industries of Northern Vindhyas* (Swabha Prakashan, Allahabad, 1986)

[214] IAR 77-78, p.55-56

[215] IAR 78-79, p.57-59

These long arguments here are necessary because the ultimate significance of the site is addresses in the following manner: “for present purposes enough that a 'PGW' like ware occurs with a RW which goes back into a much deeper past at that site”.[216] I submit here that this statement represents in summary fashion perhaps one of the largest failures of the culture-historical projects of Indian Archaeology. Lal’s interest in saying this is towards his emplotment of the Mahabharata and Ramayana legends in material culture but they are made at a level of such generality that almost any sequence of cultures could have fit the bill. Based on my own limited study and experience with this assemblage I argue here that there is a strong possibility that there was no true PGW, certainly of the early and classical types in these areas. A feature of the Vindhyan complex which has often not been raised is the presence of a large and substantial range of gray wares, which appear to be simply unslipped varieties of the Black slipped ware. This connection is one which can be considered secure as there are many forms in the refined and fine Black slipped ware which are slipped only on the exterior surface and demonstrate fine and plain reduced surfaces on the interior. Additionally as was noted at Sringaverapura too, many Black slipped wares themselves erode to a condition of a grey ware and small sherds can be quite misleading until such patterns can be recognised over the whole assemblage.

I argue here that the decorational regimes of the Black slipped wares in the eastern Ganga basin are complex and varied. The use of thick and viscous white pigment has a long and complex trajectory and is known to have been in highly elaborate use from before the year 2000 BCE. By the time period under consideration it appears that a range of more simple but ill-documented patterns of decoration were common. As chapter 5, shall detail on the basis on the survey at Kausambi, new manifestations of the decorative elements of the Vindhyan complex can still be discovered and added to the list and range. Notably these include a range of practices, including the use of the black pigment over both the gray wares and the red wares, in forms like troughs and dishes and are usually limited to basic designs. I argue here that some of the forms which have been taken as Painted Gray Ware in this region, both at Kausambi and Sringaverapura appear to be forms which could just as easily be understood as arising from these traditions, and this appears even more plausible as these sherds while being made of a fine paste are never described as attaining the similarity in the thinness which typical and classic PGW forms from the western areas appear to have. Further it must be stressed most of these types under consideration are dish types, and the examined specimens from Kausambi suggest that it is indeed possible that they may as easily be placed amongst the local assemblages of the region for the first millennia BCE rather than contemplate a foreign origin.

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[216] IAR 78-79, p.57-59

It appears that in the periods similar to the ones discussed above one of the increasingly refined forms which is occasionally encountered is primarily a bowl type which is known from both the sites. It may be described as bearing a plain unslipped surface on the interior and is characterized by an extremely fine slipped exterior which is burnished to an extent which is clearly suggestive of the technological mastery later attained by the NBPW. This type again has been at the centre of some controversial suggestions which have suggested that it is representative of the close links between the PGW and the NBPW and symbolic of a link between the two. The links here are not merely technological, in a culture-historical archaeology where pots are not only people but whole ethnicities, these are arguments for continuity which extends into the realm of presumed Indo-Aryan groups and is taken as a marker of their identities and markers.[217]

I argue here that these connections are on extremely faulty and thin grounds. The larger connections are obviously problematic and unilinear in the diverse worlds of the Ganga basin which this whole exercise has being trying to document and demonstrate. On the count of the artefact itself I argue again that on account of its distribution, stratigraphic context and technological features it again is clearly part of the Black slipped ware complexes rather than being any transitional form during the PGW through NBPW transition. The survey at Kausambi was also able to encounter a small sherd, which on account of handling of similar forms at the Prof. G. R. Sharma Memorial Museum, I attribute to this described class. The sherd is significant additionally it provides evidence of paintings on the interiors of the vessel, upon the plain unslipped surface. I argue here that it is significant albeit an extremely small piece of evidence that the sherd bears both paintings in black and thick and viscous white pigments, in what would appear to have been alternating bands. I argue here that this further secures the attribution of such decorational regimes and the wares to the local Kakoria-Koldihwa complex rather than there being to any presumed contact with or migration of the PGW using 'people', if at all any such singular category can still be constructed.

It has been important to enter into this discussion upon the 'PGW' and its debateable presence and cultural contexts in the Allahabad region for many reasons. The foremost of this is the fact that subsequent to this chapter, the dissertation focuses solely upon this area and the site of Kausambi. Further the nature of the linkages and arguments made were of an order of significance which required a full length clarification and a clear statement on the part of this evaluation of the archaeological cultures of the Ganga basin.

[217] This argument was made most forcefully in the course of the yearly reports from Sringaverapura and has been repeated since. However, this is an argument which is also generally assumed as part of the meta-narrative which only posits a settlement of the Ganga plains in terms of the OCP –PGW – NBPW linkages and fails to assign any role or contribution to the other cultures of the region.

I argue here that the evidence from Nepal at sites in Lumbini and Taulihawa districts may be similar and related more to the cultures of the Saryupar. Nonetheless until there is re-examination of the materials and fuller description it is not possible to assess that complex in any more detail.

The case of the outlying distributions in Madhya Pradesh appear to be similarly challenging in what can be made of them. As was argued above it seems parsimonious to understand the Bhind-Morena areas of the Upper Chambal valley as one which is weakly integrated into the world of the painted Gray ware. The finds at Ujjain, which have all been in the course of exploration and not from stratified contexts are difficult to assess as no details about them are published. The Ujjain evidence is further contextualized by the evidence at Kayatha, where both excavations described the occurrence of small gray wares sherds which were reminiscent to the excavators of the PGW and its associated Gray ware. Again, the sherds were too fragmentary to be able to ascertain any idea about the forms present. The discussion here can only submit that there is a possibility that these distributions represent some manner of interaction but they certainly do not seem to suggest any form of migration or colonization as has been suggested by the second excavators of Kayatha even as they document a long period of desertion before the site displays an early historic complex where the NBPW and GW overlap.[218] It appears parsimonious then to argue that there is a possibility of types which are thought to represent a late PGW finding some distribution in the region in conjunction with the later and wider integrative networks of the 'early historic period'. The evidence from Besnagar is in contrast to this, where the excavators suggest that there is an occurrence of both thick and thin gray wares, some of which are decorated alongside a complex which they define as the Chalcolithic.[219] Even though there is no full report and all sherds are reported as being too small to ascertain any shapes the evidence from Besnagar, which was clearly by that time already a major centre in the central Madhya Pradesh area is perhaps more suggestive and perhaps may indeed be a record of interaction between these zones at an early period. Nothing more can be argued or understood about the possibility of these processes until further examination of the excavated materials is performed.

Summary

This prolonged examination of the PGW complex has attempted to demystify and break down this cultural complex which is crucial to our understanding of the Ganga Basin. I have argued here that there is significant internal chronology at work in the cultural complex and even on the fragmentary

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[218] Ansari Z D and *Dhavalikar* M K *Excavations* at *Kayatha*. (Poona: Deccan College, 1973)

[219] The Chalcolithic at Besnagar is represented by a complex assemblage of many different wares and is described as : microliths + BpRW + WpB&RW+ fineGW+ RW.

evidence available it is clear that several patterns emerge. I have argued here that there are no evidential grounds upon which the PGW would appear to be a complex whose origins lay anywhere outside the Punjab-Haryana region and the Ghaggar valley. In doing so I agree with the opinions of Shaffer and Chakrabarti. I would like to add that even though the evidence at present is limited the PGW may have had a relatively discreet origin amidst the transformations of the region and then appear to have integrated other areas. That these areas are diverse and very different from each other has been amply demonstrated above. Further, I have tried to argue here that even the manner in which certain zones have been incorporated into the PGW group is markedly different from others and represent important differences in the cultural record.

The interpretation of these differences is challenging. It is here that the almost singular focus of Indian archaeology upon sections and stratigraphy rather than of distributions across sites and on plan is a methodology which seriously inhibits the manner in which we can hope to understand this evidence. Amongst the range of possibilities which could have led to the Painted Gray ware occurring in assemblages in the east, trade and exchange are only some of the most obvious. I argue that given the known existence of networks and interactions from the mid second millennium BCE and the clear differences in terms of ceramic material culture the presence of the type at certain sites may actually be indicative of the presence of individuals or small units hanging expressing their identity in material terms amidst the larger groups within which they have now moved to. This is a picture which is vastly different from that of migration and colonization and I argue that perhaps one such instance may have been witnessed at Sravasti, where the distinctive PGW tableware was found in extremely limited numbers, amidst an assemblage defined in mass by entirely different ceramic traditions. The only way in which archaeology can hope to raise these issues is by recording contexts and examining the mutual association of artefacts categories and analysing the trends which emerge out of that. This is something which has not been done in the South Asian scenario for any excavations save those at Harappa in the 1980's and 1990's. In the gross trends of levels across sites any discrete records which may have existed have been destroyed and the continued fetishization of artefacts as 'antiquities' mean that for almost all excavations there are no records which would help place the curated materials such as seals or terracottas to their context amidst architectural elements and other artefacts.

Despite these limitations I have attempted here to present a picture which of the Painted Gray ware which suggests the following. The emergence of the cultural group and its distinctive ceramic practices seems to be quite definitely within the transformations of the second millennium BCE and part of a series of experimentations and increasingly refined production of reduced fine wares as

best documented at Bhagvanpura. It appears that the earliest spread of this culture includes extensive distributions in Haryana and Punjab as well those zones of North Western Uttar Pradesh where settlements of the 'Harappan tradition are known to have been distributed'. A further complex distribution in the Bikaner-Ganganagar-Cholistan region which displays a string correlation with sites settled during the Harappan period and later PGW settlements nearby is in my opinion further indication of a close and complex relationship between these groups. Further, the earliest excavated levels in all of these regions have not included a Black and Red ware, which appears may serve as a marker of the extension of this complex within the areas of Haryana and Punjab and may suggest a later period.

Outside of this region, which is perhaps the only region where a true and definitive PGW complex exists in the sense in which it has usually been constructed we see a range of interactions. The case of south-western Uttar Pradesh and neighbouring parts of Rajasthan such as Bharatpur are complex, given that we know of a distinctive cultural group which had previously settled the area but are able to define it only in very vague terms. In the period circs 1200-1000 BCE it is clear that a considerable cultural change occurs in these areas and completely new traditions of fine wares and ceramics in general are adopted. The period also seems to witness tremendous growth in the overall number of settlements and the largest and most complex PGW settlements are known too from this region. At present this area seems to record the strongest evidence for the transformation of an existing cultural sphere with an independent cultural trajectory into the world of the PGW cultures which are known in extensive distributions to its west and north. It is matter of considerable lament that the preceding culture is so ill-documented otherwise further contemplation of the processes of cultural change in the region could have been possible.

Further to the East and to the South of this zone I have argued are areas which too bear witness the processes of expansion and integration which clearly the Painted Gray ware period demonstrates. The case within different zones of what appear to be closely related complexes has been made explicit with reference to the areas of Kanpur and Lucknow districts. I argue here that the Kanpur are probably marks the easternmost limit of any zone which is considerably integrated into the Painted Gray ware networks, and even so there is much to be clarified about the area. It appears that here the Painted gray ware appears as an additive presence in a pre-existing cultural complex and in the lack of any fully published excavation from the area it is impossible to present a hypothesis on what social dimensions this cultural manifestation takes. Nonetheless the data from Kanpur district shows that the Painted gray ware is a clear marker of a considerable demographic expansion and can be related to the forging of what appears to be a large scale settlement of the region with over 50 sites

in that district alone. Further East I have argued that these instances are much rarer and they appear to shade off and perhaps even have been misidentified which is the case of the Allahabad region. The sites of Dadupar and Hulas khera in Lucknow are perhaps the easternmost limits of this zone of weak interaction and occasional finds and demonstrate that here different cultural complexes present different regional histories in the settlement of the Ganga basin.

Considered thus, I argue that coming upon a cycle which has been termed one of localisation, deurbanisation, decay and of ruralisation in the western areas, the PGW over the course of its history presents a clear case of a culture which is not only geographically expansive but also documents a clear record of the integration of other cultural groups. This integration era is one which is highly suggestive and it would appear that it may signify other dimensions of the forging of new identities and cultural practices but for this an examination of a much closer degree based upon much more detailed data would have been required and this is sadly not the case. In the absence of this it is clear that the regions which appear to have been strongly integrated share traditions beyond just their ceramic crafts and these are most manifest in early networks of glass artefacts. More symbolically, it appears that the motif of a bird, on what has often been thought to have been a lid of some sort is a recurrent feature in these areas and has a consistent distribution amongst the excavated sites.[220] Further elements of shared culture seem to attend the appearance of animal figurines, some of which appear to have been playthings and carts while others which are human may be representative of belief systems. Terracotta finds across the PGW period are rare, but in the case of the animal figurines are usually linked by a form of incised decoration across the limbs and torso which is spatially and temporally limited to this culture and thus distinctive. As contrasted to the rare and few finds of terracottas in any cultures previously or even contemporary to this period, the production of these figures is a significant part of the material culture of the PGW and again is notably constrained within the principal zone of its distribution.

Jakhera	Incised hand modeled Male and Female figurines
Daulatpur	TC humped bull figurine
Sankissa	2 female figurine, plate in IAR 95-96
Alamgirpur	2 animal figurines/toys with string threading hole, also incised IAR 1958-59, p. 50-53 -- A bull and a Ram
Fatehpur Sikri	Description of excavations mentions find of figurines IAR 1988-89, p. 81-82
Bhagvanpura	Incised TC IAR 1975-76 photo

[220] This bird-on-lid motif if known from the sites of Chak 86, Noh as sites outside of the Haryana, Punjab and Western Uttar Pradesh zone

In summary then I argue that the PGW culture-group is one which presents a powerful and stimulating record of the forging of networks over the course of the period from c. 1500 BCE onwards down to a period of c. 600 BCE. In a period when a number of cultural groups are present and all seem to be undergoing various stable trajectories of demographic growth the PGW culture represents one of the most visible records of processes and integration and what can presumed to be processes of the transformation and the creation of new identities in some of the zones above. The differential distribution of the PGW in the east suggests that there networks and linkages across which these transformations are less intense but it is nonetheless suggestive that there was various forms of social intercourse which is not as exotically preserved in the archaeological record as by the distributions of the PGW. This discussion shall now turn to a consideration of a set of networks which appear to cut across and forge a variety of these networks.

Copper and Iron in the Ganga Basin: Metals, regions and the transgression of exchange networks beyond culture-historical boundaries [221]

The discussion hitherto on the patterns of settlement in the Ganga basin has proceeded to try and distinguish between and present a comprehensive picture of the mosaic of cultures which upon close and careful analysis can be delineated. As this discussion above has established there is a complex patchwork of communities which share common elements across regions and are also equally in different phases defined by characteristics peculiar to their own expression of cultural identity as manifest in the archaeological record. Much of the history of settlement above has concentrated upon zones which are in the Ganga plains and these are owing to their nature as alluvial deposits zones which are singularly deficient in any mineral deposits other than sands, micas and occasionally carbonate deposits. Thus, one special attribute of the archaeology of this zone is the fact that almost all artefacts not fashioned from the clay represent the social product of what are often long-distance and elaborate trade in stone and metals. As has been argued above the trade in polished stone axes which begins in the probably in the mid third millennium BCE is an important and considerable indicator of precisely such a record and has been noted as one which still presents us with many intriguing and not fully comprehended episodes. This section attempts to document and analyse the major trends in the early appearance of metallic artefacts in the Ganga

[221] This discussion shall exclude evidence from sites of the Harappan tradition from a full consideration as that is subject which in itself would require a massive examination. It shall suffice here to say that the two largest hoards of Jewellery, at Mandi and at the site of Kunal which represent truly massive quantities of Gold and Silver amongst other materials urgently require sourcing studied to help us understand the metal acquisition and production processes of the third millennium in Western Uttar Pradesh and the adjoining regions.

basin and draw inferences from these about the nature of social interaction and exchange networks in the period.

The discussion on the metals in the societies of the Ganga basin has hitherto been clouded under the shadows of the meta-narrative and the stress it laid upon a very mechanistic interpretation of technology, social change and a Marxian model of the forces of production and their role on social transformations. I argue simply here that there is no archaeological basis to any of the arguments which stress a crucial role of Iron artefacts, ostensibly available only with coming of the NBPW in the generation and production of a 'surplus', which is taken as a fount of all manifestations of change which include stratification, urbanisation and the like. Additionally another facet of this has been the trope of the densely forested and virginal Ganga plains which need to be cleared before settlement can proceed. Despite this seminal role of Iron it is further suggested that the true rise of state and empire in the trajectory of 'Magadha' too in a final sense had to do with rich Iron reserves in the southern parts of Bihar.[222]These are positions which have been argued against a number of times and forcefully on the grounds of both evidence and theoretical considerations and the discussion presently shall not attempt this task again, rather attempting to present a wider picture of the use of metals in the societies of the Ganga basin. In this discussion two dimensions are of the utmost importance and are most suggestive of the manner in which we can consider the evidence; the first considers the chronology and timing of the appearance and production of artefacts which herald the coming of what has been called the 'Chalcolithic' period. The second abiding concern of this discussion is with source areas and a consideration of trading networks which appear to have articulated the flow of these goods.

The earliest occurrence and uses of copper in the Eastern Ganga basin

Amidst the range of materials which appear to have been brought to Lahuradewa in the third millennium BCE is a copper arrowhead, which is of such a distinct morphology that it immediately recalls types known from the Harappan world and suggested to have been produced in the Ganeshwara-Jodhpura complex. While many of these links are based upon the logic of pure form and not any technical analysis but it does seem to be a plausible linkage. Apart from this however the record is discontinuous and small, and it appears that there are only a few instances of small artefacts such as copper hooks, probably used for fishing, which are also known from early albeit mid second millennium contexts from Imlidih khurd in the Sarayupar. I argue here, contra Tewari et al that the smaller category of artefacts probably represent a local and small tradition which is related to similar distributions over the period of 2000-1500 BCE in the Bihar Ganga plains and the

[222] Kosambi, D.D., 'The Beginning of the Iron Age in India' *Journal of the Economic and Social History of the Orient*, Volume 6, Number 3, 1963 , pp. 309-318

Kaimur. The tendency of the culture-historical and evolutionary mode of evaluation of the cultures of the Ganga basin has led to many complications in this area and have led to many needless explanations being proffered for instances which blur the lines which terms such as Neolithic and Chalcolithic seek to erect. A common instance of this is the continued use of polished stone axes in the Bihar sites along the Ganga, like Chirand and Manjhi where excavators have been at pains to try and explain away their presence in periods after the 'Neolithic'. A similar trial of evolutionary and stagist taxonomies has come from the site of Senuwar where in a paradoxical situation the period of the 'Neolithic-Chalcolithic' of 1900-1350 BCE is one which yields more copper artefacts than the entire subsequent and equally long Chalcolithic period (1350 -700 BCE).[223] I argue here that while the evidence from Lahuradewa is undoubtedly earlier and seems to represent imported artefacts, when considered alongside the sporadic finds from across the Ganga in the Bihar region there appears to be a case for a zone where copper is being used and thus presumably produced in small quantities. Thus for the early period of copper utilization which sees the production of mostly fish hooks and bangle like objects amidst unidentifiable fragments we have little clarity on the situation but to stress that the objects themselves do not appear to have been amongst such items which would have been traded over long distances and instead point to a small scale and consistent tradition of producing copper artefacts. I argue for this tradition of the utilisation of local Vindhyan copper mineralizations also because artefactual studies for the subsequent NBPW phase has strongly suggested that it these sources which appear to have been used for the production of copper artefacts in the Eastern Ganga basin and it appears on the basis of such evidence that these may have been trajectories which extended further into the past.[224]

The tradition of Copper Hoards: Approaching an understanding of the networks at work

The copper hoards and the diverse range of artefacts which they represent present a major presence in the Ganga basin of metallic artefacts. While it is not possible here to review the whole host of complex issues which these challenging hoards represent a few points must be raised. The initial identification and suggestion that the culture had strong connections with the Ganeshwara – Jodhpura complex of the third millennium BCE has rested upon the alleged similarity of the copper axes and a broad suggestion that the ceramics, which had both been broadly and indiscriminately labelled OCP were one and the same. It appears now that the argument on the basis of ceramics alone is clearly insufficient and cannot be upheld even though it has been restated a number of

[223] This quantification is of course subject to substantial qualification by way of fragments and the nature in which archaeological excavations only sample certain parts of the site, but it is reproduced here for the manner in which the excavators have chosen to frame their discussion of the finds.

[224] Ravindra .N.Singh, 'The issue of High –Tin bronzes in Middle Ganga plain' *Pragdhara* 17, 1-11

times recently.[225] The argument on the grounds of the axes alone too cannot be revisited as more information has not been forthcoming on the same. Innovative studies of the known motifs on some of these axes and the suggestion that is a continuation of the known Harappan practise of inscribing copper axes has been suggestive and has provided a new avenue into the exploration of these contexts. This is something which has proved, in light of the Gujjar Kheri anthropomorph to have been an extremely significant find and one which vindicates the position of Krishna Kumar that these inscriptions are significant markers and one which seem to draw upon a common tradition.[226]

While it is not possible here to draw out the complexity of the relative distribution of the various components of the hoards, it is significant that the known proportions of artefacts are known to vary quite substantially. While anthropomorphs are usually limited to a few, rings are numerous and the swords and axes usually only a few. I argue here that it is even possible perhaps that not all of these artefacts were produced in the same region, and I suggest that a full length examination of their relative distributions may suggest that they are not equally distributed in the same proportions everywhere. I argue here that the areas of south-western Uttar Pradesh, where a major concentration of Copper hoards occur is a region where almost all the types are found consistently. This may indeed suggest that some of these are being sourced from hitherto unknown cultural groups who may be continuing to work the reserves in the Sikar – Jaipur region, or that late Ganeshwara –Jodhpura complexes had a longer chronology than is hitherto thought of. It must be stressed here again that on the basis of excavated artefacts we know very little of what the culture was producing beyond the arrowheads and axes.

[225] cf. M.D.N Sahi, 'Early interaction between Cultures of the Mid-Ganga Valley and Western India', *Pragdhara* 15, 91-115

[226] Krishna Kumar, 'A Pair of Protohistoric Copper Axes from Kanpur District and their Symbols', *Pragdhara* 11, 131-135 Arvin Manjul, 'Composite Anthropomorphic figure from Haryana : A solitary example of copper hoard', *Pragdhara* 17, p.17-27

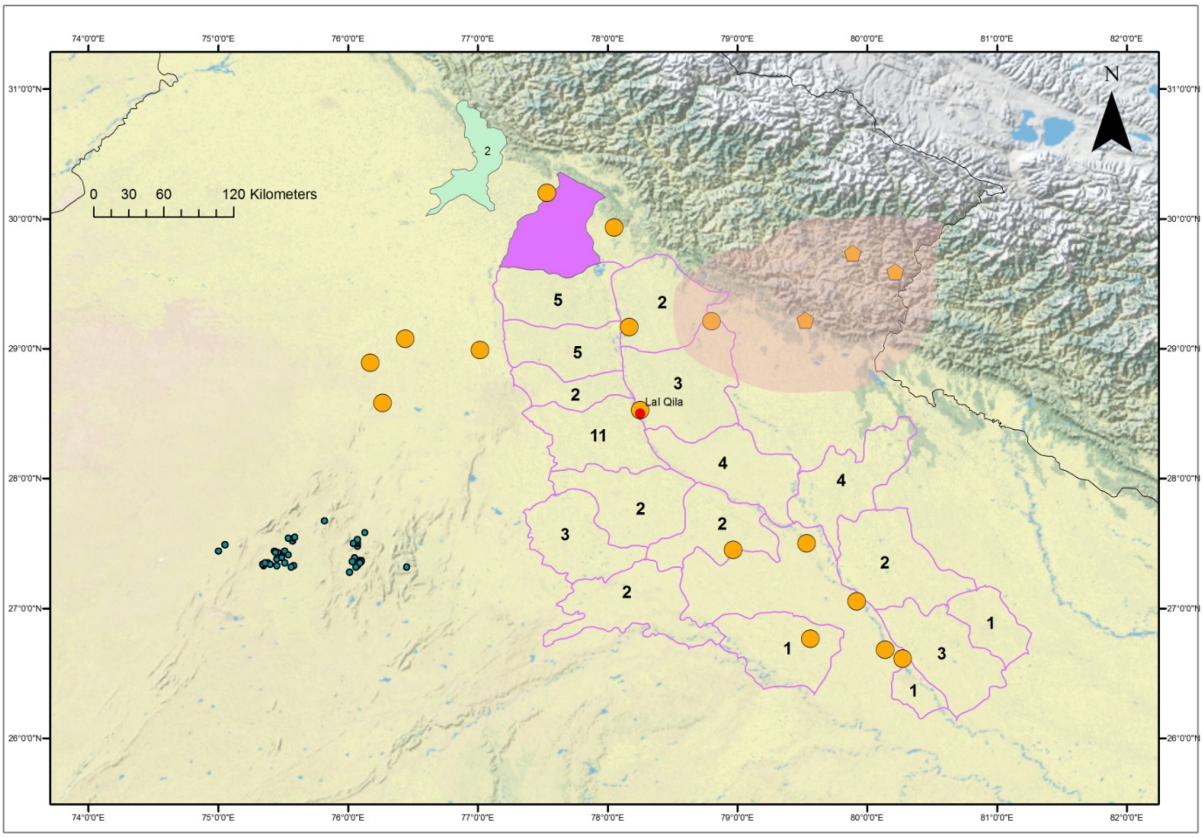


Figure 18 A map representing the major copper production regions and find spots regions. The blue dots in the lower left are the Ganeshwar Jodhpura cultural group. The large yellow dots are the prominent copper hoards of the Ganga basin. The district polygons represent the major distributions of OCP sites as reported and the red dot represents the typical site of Lal qila. The area shaded over in Uttaranchal which extends to include Madarpur in Moradabad indicates one zone of the distinctive anthropomorphs.

The fact that significant numbers of Anthropomorphs have been found in one major hoard and in two further finds in the Uttaranchal hills, near Pithoragarh which is large region of copper mineralisation is a strong suggestion that these artefacts may have been produced in he region. The copper mines of the areas bear old workings in the form of open pits but it is not clear what antiquity these workings are of. Additionally the recent find at Madarpur in the piedmont zone was a large hoard only of circa 20 anthropomorphs suggests that these distinctive artefacts may indeed have had a different source.[227] To the best of my knowledge in no other region are there hoards which consist solely of the anthropomorphic figurines in any other zone of the distribution of the

[227] Suggestions have been made which link Madarpur to a network of the distribution of the anthropomorphs. I would also like to raise the fact here that all of Madarpur anthropomorphs were known to have been located in a single jar at the time of their discovery in a context which was within the bounds of a habitational site, a trend considerably in contrast to the other known distributions of hoards of mixed composition often buried away from sites. D.V. Sharma, A. Pradhan, V.N. Prabhakar, A.K. Bhargav and K.A. Kabui, 'A Report on Excavation at Madarpur, A Copper Hoard Site', *Puratattva*, Volume 32 (2001-02) 33-54 However, it must be added that the recently described Udaipurwa hoard also seems to have been encountered within the bounds of a large site. R. Tewari et al 'A newly discovered Copper Hoard from he Ancient South Panchal region', *Puratattva*, 37:2006-2007, p.266-272

copper hoards. This is further suggested by the fact that the Bankot anthropomorphs are known to have been fashioned from a copper source with a considerable impurity of arsenic, something which is known from the Kumaun deposits. Further, the iconography of the Bankot anthropomorphs clearly is most similar to those known from Madarpur, these are roughly a leg-less and 'seated type' and again strengthen the connection between the two sites. Thus given that it appears that at least one type of anthropomorph is discreetly produced and distributed this may indeed be the case for at least some of the other types as well.

The hypothesis above is tentative but to my mind an important first step in breaking down what has hitherto been a monolithic consideration of the finds of copper hoards. I argue here that much has been left unconsidered in the contemplation of these records of the discrete and deliberate burial of what are clearly expensive collections of artefacts, often transported over long distances and forged at the expense of much labour and cost. The sheer volume of the Hoards as considered against the small and limited range of artefacts present in all the OCP habitational site excavations suggest that the act of burying these deposits was a significant and important manifestation of not only wealth and its accumulation but also of belief systems about which at present we do not understand very much at all.

It is also additionally important to consider the wide time span which these objects may indeed represent, especially given that the chronology of the OCP, tentatively ranging from a suggested 2200 BCE through to a period of c. 1400 BCE at least is one which does not rest upon any secure radiocarbon chronology. I argue additionally here that the find of these artefacts are distributed considerably beyond the zone of sites of the OCP and Late Harappan traditions. This is something which is known in a general macro-scopic sense of the known existence of some copper Hoards in Bengal, Bihar and elsewhere as well. However what is often not recognised is that there are distributions of at least some of the copper hoard artefacts which appear in zones within the Ganga basin which in the discussion above have appeared as not being related in any way to the 'OCP' or 'Late Harappan' complexes. The case of Kanpur district is one such example where early reports to an OCP assemblage at certain sites has not been confirmed in recent re-examinations. Further, known excavations in the area, both in the southern part of the district at Musanagar on the Yamuna and in the North at Jajmau on the Ganga have stressed how the known cultural complex there seems most closely related to the Vindhyan complex or the Kakoria-Koldihwa assemblage. From the area however at least two known archaeological sites[228] have reported copper hoard artefacts and more have been sourced by locals involved in the antiquities trade for whom context has now been

[228] These are the sites of Bithur and Sheorajpur.

lost. It appears here that there is a possibility that copper artefacts such as the axes in particular may have travelled more extensively and beyond cultural boundaries as have been imagined. The case of Kannauj where an Anthopomorph is reported from as well as a few axes complicated this issue further as it is a site where the finds of OCP-like sherds has both been reported and disputed.[229] Copper axes are distinctive artefacts and do not have a long history of production and thus it is significant that Cunningham seems to have acquired a single axe from as far East as the site of Kausambi.[230]

In this sense I have argued here that there are many aspects of the history of early Copper use, production and networks of exchange and distribution that still require clarification and further understanding. A major element in this is the need for studies of sourcing and a complete mapping of the range of sources which the ancient people may have utilized. Only then can we begin to unravel what appears to have been an extremely complex picture of what are possibly many specialized and long-range networks alongside others which are limited and smaller in scale and probably zone of distribution as well.

Iron in the Ganga Basin

The use of Iron in the Ganga basin itself was not very clear till recently. G.R. Sharma had claimed in 1960 that there was Iron in the earliest levels of Kausambi and thus dated to a period between 1200 to 1000 BCE. This suggestion was met with nothing but scorn and taken as symptomatic of stratigraphic confusion which was thought to inform his characterisation of the site. In the period till the mid 1990's excavations in the plains consistently recorded the presence of Iron in contexts datable to the firs half of the first millennium BCE. The sites of Jakhera and Atranjikhera provided clear evidence for the first time of Iron on the other side of the notional divide of the of year 1000 BCE and it was suggested that the use of Iron probably began c. 1200 -1100 BCE. This position had remained a consensus which by and large was taken as ratifying the principal elements of the metanarrative, that Iron was in limited use and yet was associated with migrating Aryans.

Rakesh Tewari's prolonged projects of surveys and excavations in the Chanduali and Robertsganj areas of South-eastern Uttar Pradesh, which are situated in the Vindhyas and are defined by the valley of the Karamnasa has perhaps been one of the most successful projects of survey and excavation in Indian archaeology. During the survey period, Tewari et al repeatedly noted large concretions of slag and what appeared to be broken tuyures and furnaces at some of the sites,

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[229] IAR 78-79, p.22; page 19-20 INDIAN ARCHAEOLOGY 1955-56 and IAR 78-79, p.101, OID for the debate on OCP in the Kannauj area

[230] Cunningham himself does not report this but it is mentioned by Vincent Smith in Vincent A. Smith, 'The Copper and Prehistoric Bronze Implements of India,' *Indian Antiquary*, Vol. XXXIV (1905)

something which seemed particularly suggestive as these yielded ceramics of a protohistoric nature and were located in regions near substantial Haematite deposits. Subsequently Tewari and his colleagues have excavated three sites in the region which have all yielded securely dated series of dates for the early use of Iron and furthermore the sites of Malhar and Phakkada Baba have yielded complex and incontrovertible evidence of the production of Iron at these sites in extremely early periods. These periods are notably those which place the sites and their comparable material culture within those of the chronology and cultural ambit of the Vindhyan complex or the Kakoria-Koldihwa complex. Tewari has repeatedly synthesized and produced tables for these dates, which appear to commence at about the year 1700 BCE or so for Malhar and are supported by a range of dates further into the second millennium BCE. Subsequently, the excavations at Lahuradewa, Dadupar and even at Narhan in different sectors of the plains have further revealed evidence for similarly early chronologies for Iron which appears to date back to the middle of the second millennium BCE. Tewari has quite parsimoniously for the present suggested that this evidence in concert suggests large scale networks which were sourcing Iron artefacts from the Vindhyas in the second millennium BCE and distributing them to sites in the plains.

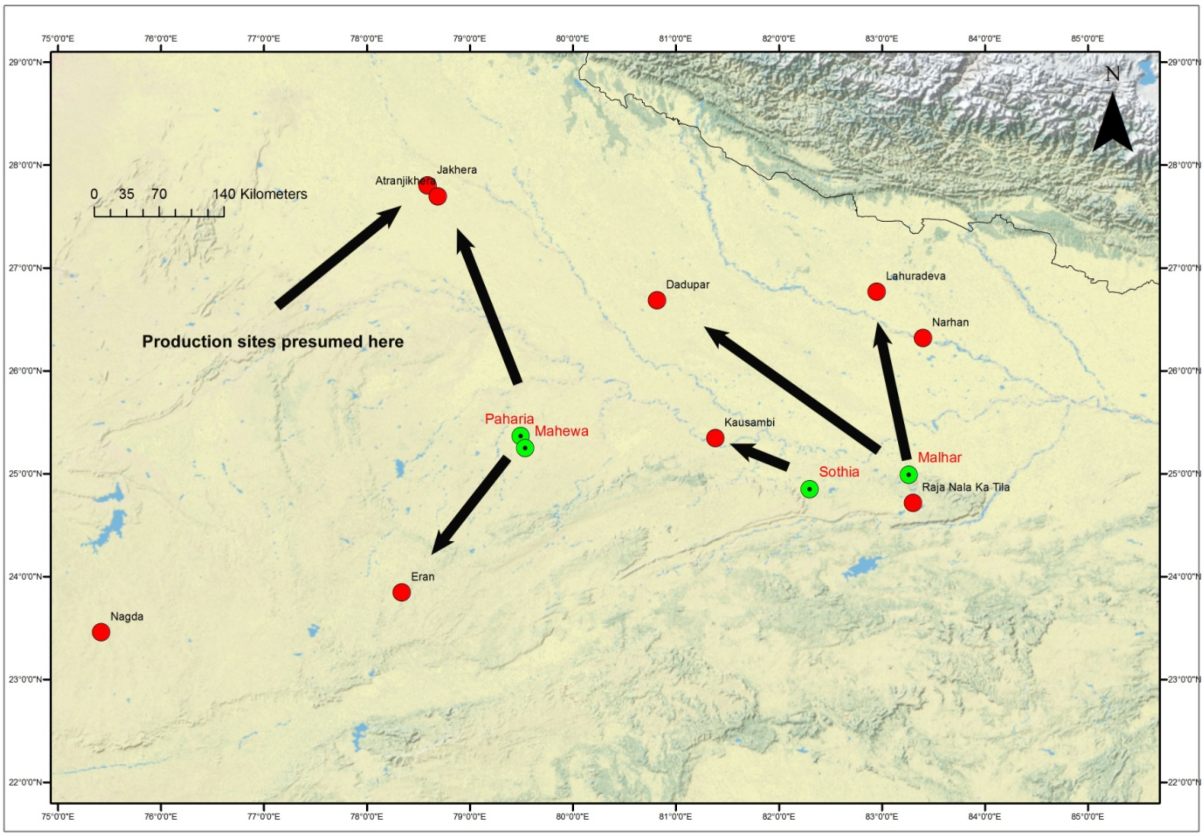


Figure 19 Map showing major Iron production centres in green and the sites with early dates for Iron in Red. The black arrows represent the presumed networks of distribution and exchange

Tewari's sustained project in the Vindhyan hills as well as detailed documentation of what are fragile and sparse artefacts at early levels from sites in the plains is an invaluable documentation of a major network and exchange trajectory which had so recently not even been suggested to have been in existence. Since then, explorations by the Allahabad University and the U.P. State archaeology Department have succeeded in locating sites with similar surface assemblages of massive amounts of slag and typical ceramics of the Vindhyan complex in the areas around Koraon as well as in Mahoba. While these sites are not excavated yet, a common element which seems to unit their consideration is that for the smelting activities of these metal smiths it appears that even detritral talus deposits of Haematite were sufficient. This is a fact of much importance which needs to be considered seriously about the manner in which we model and understand the early trajectories of Iron working in the region. Haematite deposits of such small and sporadic nature are extensively located in the Son and Belan valleys and indeed are quite common amidst the Vindhyan conglomerates and sandstone residual hills of the region. I argue here that further explorations in different sectors of the Vindhyas shall only reveal more such localities and production zones. The case of the Kaimur may be somewhat different on account of the lithology and cannot be speculated upon here.

Thus the Vindhyan region of the Mahoba through Sonabhadra belt is an area which can now be safely posited as one of the major and early Iron production zones of the region. It is worth noting that RC Gaur's attempt to understand the source of the early Iron artefacts at PGW levels had led to an isolation of a geologically similar unit, which is really a continuation of the same formation in the Agra through Gwalior region. Gaur and his associate V.K. Srivastava had even conducted basic elemental chemistry tests of the archaeological slag against samples of what are described as highly ferruginous sandstones capped by ferruginous shales which revealed a high probability of their being the source of the artefacts.[231] It is thus a matter of some surprise that no such sites have been reported from that region, but this is most certainly a manifestation of the manner and the low intensity of surveys which have been conducted in that broad region.

Again suggestions have also been made about deposits in the Uttaranchal area, as possibly having played a major role in supplying the Iron to the PGW sites of the Northern sectors. This is a suggestion based on known reserves and what possibly may be old smelting sites in the Lohaghat region. Further it appears that the site of Uleni, in this region near Pithoragarh has yielded a date of 1000 BCE but it is not clear what the cultural context was and what the dated materials were

[231] V.K. Srivastava 'Could the Agra-Gwalior region support an indigenous Iron industry during Protohistoric times' in R.C Gaur, *The Painted Gray Ware: Proceedings of a seminar held at Aligarh Muslim University* (Jaipur, Publication Scheme, 1994)

associated with. Nonetheless, the presence of archaeological smelting adds to the growing set of evidence that suggests that Chakrabarti's characterisation of early Iron working being polycentric and based upon the utilization of local and small deposits is increasingly vindicated. What needs to be stressed is that there an understanding of the networks which fed this trade in early metals is something which is still deeply desired and required for a better comprehension of regional interaction and the formation and transformation of cultural identities in the Ganga basin.

XII. The many worlds of the Ganga Basin and beyond at the threshold of the NBPW era

This section attempts to summarize and draw upon the discussion above to present a synthetic picture of the regions under study over the course of the second millennium and down to a period which is most easily referred to as the period of the NBPW. As has been argued repeatedly and from many different perspectives the period from 2000 BCE through to c 800 BCE is a complex and exciting period in the study of the societies of the Ganga basin as almost every sub-region witnesses a series of transformations which yield a mosaic of cultural groups. The arguments above have stressed time and again, on account of a detailed and prolonged examination of ceramic, lithic, and metallurgical networks that there are extensive networks which seem to implicate these cultures in a whole range of networks of varying directionality, import and intensity. The cultures of the second millennium BCE in the Ganga plains do not coexist ignorant or without knowledge of each other. If anything the case is the opposite and the material culture displays often almost a conversational familiarity with the material culture of other regions, perhaps best represented in the some of its most basic constituents such as the plain and simple fired storage jar types.

A primary purpose of this section is to contextualize and frame some of the arguments that have been pieced together in detail previously. Thus a major strand which seems to emerge over the course of the second millennium BCE is the transformation and subsequent regionalization in the idea of table-wares and in the forms of their production. As had been argued previously the idea of a range of pedestelled vessels as being important elements in a culture of dining is an idea which appears to have had multiple roots and manifestations but comes to be a central part of cultures which are implicated within the Harappan world. Other areas too seem to develop traditions of finely produced pedestelled dishes which seem to be conversant with and in dialogue with these traditions. This is of course an extremely wide zone and ranges from Sind to Gujarat and from Kashmir through to parts of Bihar. This is a cultural process which is clearly manifest and locally

negotiated in a variety of forms in the period from c. 3000 BCE if not earlier and certainly comes to be present on the tables (or equivalent arrangements) across the zone by the year 2000 BCE.

Subsequent to this period, in what has been called the Post-Urban phase, and a phase of localisation the Ganga basin and its adjoining regions are witness to a transformation of a very significant order which involve serious changes in local fluvial environments and what appears to have been a general form of retreat and collapse of the previous era of massive integration and urbanisation. I strongly believe that the current wave of studies which redresses the exaggerated manner in which this collapse and a presumed discontinuity were first stated for sites in the Indus plains shall find similar application to the regions of Haryana, Punjab and Western Uttar Pradesh. While many routes and linkages are no longer in as vibrant and rapid use as before and while there appears to have been some form of deurbanization the period from 2000-1000 BCE sees the expression and expansion of a succession of local cultures. While at present only confusion prevails about the manner in which we can understand the 'Late Harappan' cultures of the region it appears on the face of the published information that perhaps a number of discrete cultures are plausible in small sectors possibly with regional centres of their own. Craft production, trade and the expression of regional ceramic styles are some of the trajectories which are evidently clear and future work should clarify the nature and degree to which these cultures can continue to be framed within a paradigm which solely stresses devolution and decline. In contrast it appears that the cultures of the Eastern Ganga Basin over the course of the late third millennium BCE and through the second millennium BCE undergo at least a single major cycle of demographic expansion and come to be defined far more sharply in terms of regional cultural identities and groups.

In the midst of these transformations in both regions a new trend seems to emerge in the manner in which the question of table-wares is concerned. The transformation appears to have been characterised by a shift away from elaborately constructed pedestelled bowls to very fine wares produced in distinctive and highly specific bowl and dish types which are either highly polished upon a fine slip or decorated in another sense in the form of painted designs. This transformation is markedly slow in both broad regions and it appears if anything that in some of the eastern complexes, especially the Kakoria-Koldihwa complex, the use of pedestelled vessels seems to continue almost down to the period of the NBPW. The morphology of the dish type itself is something which appears not to have been particularly marked by any degree of standardization. Rather a range of variants in terms of diameter and precise rim types are produced but a general trend seems to be one towards the production of increasingly thinner and absolutely flat based dishes.

In all regions of the Ganga basin, drinking vessels acquire equally distinctive and specific forms marked by a constricted lota type in the PGW complex, and a range of pedestelled vessels in the eastern areas, a trend which appears to spread widely and with changing and different morphologies. Amidst this the bowl forms too, are produced in highly polished and decorated classes and are definitive in terms of their distributions and forms, a case in point being the post Ganeshwara-Jodhpura complex of Black and red wares, whose carinated bowl is perhaps even today the only marker of this ill-understood complex. Bowl forms vary widely and are extremely distinctive as has been argued here for the case of the early PGW and the Narhan complex, the latter which seems to have been a very congealed expression of local identity and craft in material culture.

The discussion above I believe has presented the only evaluation of the Ganga basin which has sought to evaluate, understand and emphasize the processes of cultural change and expression which are synchronously negotiated across the entire region. Previous accounts have I believe failed to stress the diversity and the wide range of regions and areas which these various cultures are known to have expanded to settle. The 1990's and the early years of this decade have been extremely productive and challenging years in the archaeology of the Ganga basin and have considerably revised many opinions about the cultural history of the region. I argue here that while this effort at synthesis has been based upon this host of fresh studies in the region there are significant problems of cultural terminology and different labels for the very similar phenomena and assemblages which threaten to cloud and complicate the issues. Urgent comparative study of materials from across sites is required to be able to arrive at a clarification of some of these issues and the question of cultural definition remains open ended and diffused in terms of its boundaries until then.

A vital question which needs explicit consideration is in whether all of these groups as demarcated by the presence of distinctive fine wares and /or distinctive assemblages are constitutive of distinct social groups. As a preliminary it should be stressed that until the study of material culture shifts away from its only index of stratigraphy as the ingredient of social identified towards a paradigm where different areas and the constitution of every level of a site can be studied it shall not be possible to arrive at anything better than a broad culture-historical visualization of the region. I argue here that the problem needs to be considered at two levels, the first of which has proceeded at the level of the previous discussion and has taken repeated sets of similar ceramics assemblages in terms of ware as well as types as distinct units, representative of a broadly shared culture. The presence of fine wares, which are often one of the few clearly labour intensive consumables produced in these cultures suggests that these groups and their boundaries may actually be

representative of social groups who may be defining their identity vis-a-vis such items of material culture. The correlation of these ceramic based culture-historical groups however does not by any means draw a social boundary in terms of variability within or from the outside. It has to be confessed that it is probable that different social groups co-existed within each of these large ceramic cultures and perhaps that meaningful social solidarities cut across these groups as well. This is a precaution that we must be heed and be wary of, as it is a suggestion which is considerably far removed in its social vision from the dominant and exhaustive attempts to associate 'Aryans', whosoever they may be, with perhaps at one time or another with all the known ceramic wares of the Ganga basin.

What is at stake here is a complex issue which involves the manner in which we can consider and visualize the societies and communities whose material cultures this discussion has been all about. It appears clear to me that almost all of these cultures on account of the presence of fine wares, and similar forms in plain wares as well as of the limited circulation of high quality goods including those which are involved in discourses of the body and presentation such as beads etc., are societies which must have been implicated in complex power structures and were witness to varying forms of differentiation and had witnessed the emergence of those who sought to control and manipulate these power structures. I consider it an unworthy exercise to try and label these processes or come to an understanding of the 'relative' degree to which they have proceeded in various regions, as t is equally important to accept that the registers of such processes in different cultural zones could be quite different and our attempts perhaps not as sensitive. I argue again here, as previously, that one major universal indicator of the shifts in the ordering and scale of communities and the forging of local and regional power structures – which is an integrated account of the settlement patterns across the region is lacking in sufficient detail for us to hypothesize about it. Nonetheless, in what has been called here as the Kakoria-Koldihwa complex, the practices of megalithism, some of which are truly monumental in the scale of their construction provide one important index into the manifestation of these practices. In other regions our indices are not as obvious and require perhaps more considered evaluation of the manner in which social spaces are constructed at these sites and activities as well as distinctive goods congealed within certain areas.

I argue here that in contrast to the previous period of 2500 – 2000 BCE when small clusters of up to 10 sites are visible in only certain small pockets the subsequent period witnesses considerable change and the emergence of what I shall term here the emergence of regional scale societies which are recognisable by a common and shared set of cultural traits and seem to define a clear sense of region in their interrelated settlements. I argue here that perhaps the clearest sense that one gets of

the emergence of such a regional culture from the first half of this period is that of Kakoria – Koldihwa complex in the Adwa and Belan valleys as has been richly documented by the explorations of the Allahabad University. It is clear that in this region, a group of upwards of twenty clear settlements which appear to range between 2 to about 10 Hectares in size for the period are closely distributed. Not only do the sites share the distinctive assemblage they are almost all associated with cemetery sites of varying sizes many of which appear to be marked by monuments of varying sizes and scales. Some of the sites are located on the slopes of the residual hills which seem to offer areas of considerable pasture land as well as favourable settings and others are located along the banks of rivers or at the confluence of such sites, which are possibly settlements which are more principally geared towards agriculture.

Outside of this small and clearly defined zone the intermittent reports of sites of similar material culture suggest that other areas too may reveal such settlement patterns, marked by interconnected sites of a regional culture of the Vindhyas and further exploration in these zones can be expected to detail this further. The region of the Kaimur foothills, known from the site of Senuwar is known to develop its own trajectory of ceramic cultures and such sites and the region also seems to display a growing range of sites in the immediate foreland of the hills and may represent another such group. The explorations in this sector of Rohtas district are again known to have yielded a small cluster of 6 or 7 sites which represents a small growth over the known number of sites in the region known for the Neolithic period. Such modest trends of growth are known for many sectors in the period from 2000 through to circs 1500 / 1300 BCE, including many sectors of the Sarayupar. It is currently an open question as to whether the agglomeration and growth of settlements is really indicated by these trends or whether the partial coverage which jeep surveys can manage at best and the trends of encapsulation which are inherent in the long periods of occupation witnessed at many sites have masked the real trajectories of growth. I favour the second alternative and argue here that as we develop better and more sound markers which can be used to determine the age of sites by survey and mount more detailed and intensive surveys in various regions a greater number of sites for the early second millennia on shall become clear. At present often it appears that there are but 5 or so sites in many districts which are by excavation or by survey now known to date back to circa the year 2000 BCE. I argue that such a sparse pattern of settlement for what appears to be communities forged in a manner suggestive of more extensive networks of villages is born out of an inadequate survey and a lack of clear ceramic standards which have been used in surveys. A good example of this is the confusion that still persists in the Sarayupar about the cultures, which may underlie the Narhan complex in the region centred upon Gorakhpur.

The second half of the period is marked by a serious rise in the visibility of settlements in most regions, across the eastern and the western parts of the Ganga basin and these figures come to present a range of 15 to 30 sites per district, amongst those which seem to have witnessed at least fair coverage under traditional methods. My own experience in Allahabad and Kausambi districts suggests that this too may be a range whose limits may need to revised further upwards. The excavations at the site of Lahuradewa which investigated many areas of the mound and generated a picture of the growth of the mound itself have suggested that it this may indeed be the period when the site grows the most and achieves its maximal size. I find this documentation salutary and argue that more detailed surface work at sites, aimed at coming to a similar understanding shall reveal that these settlement patterns can be further textured by coming to an understanding of which sites grow the most in this period and by telling us more about the general range of site sizes and the settlement hierarchy.

A problem which currently is in urgent need of being answered relates to the delineation of cultures and cultural groups. The combined use of distinctive fine wares and ceramic assemblages is a trajectory of analysis which can delineate groups only in broad swathes and not in any finer detail. The cultural group which has been termed the Vindhyan complex or the Kakoria-Koldihwa complex is a case which serves to illustrate the dilemmas that are presented by the manner in which the assemblages are distributed across the Ganga basin and its various sectors. The culture as I have argued is best defined in the small river valleys of the Vindhyan region. Yet its distributions in the zones of the plains, where o megaliths could be built and no associated burial complexes seem to have been found as yet seem to present one level of problem. Another problematic issue relates to the assemblages of the central Ganga basin, such as Musanagar and Dadupar which I have argued are most closely related to the Vindhyan Chalcolithic. I further argue here that it is Tewari’s judiciousness in not attributing them to any given culture, but this is a position which needs clarification and full publication from each of these sites before we can begin to understand what the true absolute range of complexes and their variations are.

In this effort to stress the differences and to parse out cultural groups, it also needs to be noted that many of the ceramic elements which have been suggested to have been indicators of exchange or of transport may actually be part of a common and shared tradition of making certain types, especially amongst the utilitarian red wares. The complexity which such a possibility suggests is tremendous and of considerable import considering that the red wares, overall, are the statistically most significant assemblage of all the cultures under consideration. I argue here further that a major question also resides in the Black slipped wares which are produced by the year 1000 in almost all

cultural groups of the Ganga basin, and in what appear from published records to have been exceedingly similar dish types. It appears to be the case that there are somewhat different technologies at work here, especially in the refinement of slipping and polishing techniques that is known mostly, but it must be added not exclusively from the east. The western black slipped wares are ill-described and again it is only a major study which actually measures and compares forms as well as arrives at some technological consideration of the black slip is produced and applied upon these vessels can hoe to clarify these issues.

By the year 1000 BCE all surveyed regions of the Ganga basin demonstrate the existence of considerable patterns of village settlements which are linked in a chain of presumed economic interaction and moulded by cultural patterns which are often operating on a range of scales. A small scale linkage appears to be of settlement patterns bounded within units such as river valleys in the hills and perhaps interfluves zones between rivers, both large and small, on the plains. A lager scale seems to be apparent in the cultural zones which appear to be defined around the principal distributions of fine wares and the localised regions of their conspicuous use and consumption. These regions themselves appear to forever in the process of making and transformation. Narhan on one hand represents a small region which appears to express a distinct identity in its white painted black and red ware simple and pedestelled bowls in a region which had been previously known for the extensive distributions of the Sohgaura – Khairadih kind of Black slipped ware. Such internal processes of innovations and the articulations if new identities represent one form of the processes active in the basin and notably run parallel to the extremely different and expansive and widely integrative forces of the PGW complex in the east. The central Ganga plains have under a recent and sustained project of exploration been argued to have revealed no great evidence of settlement before the PGW. While the thoroughness of these landmark surveys and the immensely wide area they have provided a rich documentation for are not in question this is not a matter which can be considered as finally answers, especially in light of the recent results from Dadupar. The picture presented, at length, above is perhaps the best synthesis that can be afforded at present and further work shall serve to not only complicate but also further enrich this picture.

The world on the margins of the Ganga basin

The many caveats and qualification which guard and delimit the nature of assessment of the Ganga basin at 1000 BCE have often been made with reference to a perceived inadequacy of the datasets to answer to vital categories of information. However, it must be stressed that across all of India and even South Asia, the Ganga basin today represents one of the most richly surveyed areas and the

limitations are born out of the vastness and out of the methodological stupor which survey methodologies have failed to evolve out of. The contrast and the actual level of documentation is only heightened by the fact that when for the purposes of this discussion this attempt sought to compile and collate data for the states of Madhya Pradesh (including Chhattisgarh) and Rajasthan and Bihar (including Jharkhand) there was almost nothing which was comparable. Large areas have clearly not been surveyed in these states or even if they have been no publications, even in summary forms have been made yet. This is an extremely unfortunate situation and further limits the manner in which we can imagine the pasts of the Ganga basin as there appears little doubt that these were some of the regions with which the cultures of the Ganga basin may have been in regular interaction with.

In the case of Rajasthan a puzzling situation is at hand. The renewed dates from the Ahar Banas complex suggest that many of the sites appear to have been deserted by a period of circa 1800 BCE. At Ahar where an old date was known to continue to the period of circa 1200 BCE there is no known documentation of cultural change and the material culture appears to resemble that at Balathal when it was deserted. Thus, the decline and collapse of a major regional society is something which is a mystery despite the region of its principal distribution having been the subject of considerable survey and exploration. A similar case is at hand with the Ganeshwara-Jodhpura complex where a range of suggestions have been made without any further publication of the material culture of the type sites nor without any re-examination of the materials. It appears from Rizvi's analysis that late complexes in the region may have persisted into the second millennium BCE but at present there are no chronological limits which can be placed upon such processes.

It appears that both regions may have been linked by the presence of a later culture defined by the use of a Black and red ware which has hitherto only been described as plain, not sharing any types with the Ahar ware and being defined instead by a dish and a bowl type. If this is the culture known at Atranjikhera, it represents a major regional complex and requires further study. Unfortunately until further clarification comes from Rajasthan itself not much can be generalized or hoped to be understood about this crucial region over the course of the second millennium BCE.

Across the Chambal and into Madhya Pradesh a paradoxically different situation awaits the consideration of the evidence. The Malwa culture sites are known from nine districts which are somewhat discontinuous and thus smaller and still unknown distributions may be presumed for this entire region. This area which is bounded between the rivers of the Chambal on the West, the Ken on the East and for present purposes the Narmada on the south. The Malwa culture is known to have a complicated distribution along the southern bank of the Narmada and into Maharashtra but

those are areas which are simply beyond the Pale of the present study. The Malwa culture represents a peculiar case in the development of archaeological knowledge as major excavations in the 1950's and 1960's are the principal pillar upon which the evidence for the complex still stands and not much further progress has been made since. These excavations notably have been at three of the largest sites known for the complex and three which are suitably enough all situated in very different area. Navdatoli on the Narmada, is known to have approximated almost 30 Hectares in size for this period alone, Nagda is similarly known to have been an extensive mound along the Kali sindh but somewhat more modest in its size. The site of Eran on the banks of the Bina, is known to have been the largest site in the North and is notable in the present context for its proximity and closeness to sites of the Vindhyan complex. Eran additionally is a site which has been provided with a considerable mud rampart in the course of the period. Overall it is extremely unfortunate that there is no synthetic account of the Malwa culture which could present to us a picture of the complex as known today. In fact, it is almost after 40 years that excavations were once again commenced along the banks of the Narmada in the 1990's and that too only when regions were threatened and came under the submergence zone of the Sardar Sarovar Dam.

Nonetheless, it is apparent that the Malwa culture is an extremely complex and large scale cultural phenomena which I argue here probably represented a series of shifting and possibly competing political centres within its expansive fold. The culture itself is a definitive complex marked by the presence of principally one buff to orange slipped ware, in a variety of forms, which is decorated by a massive range of decorational motifs which are estimated as being approximately 700 plus. Additionally the ware is known from a range of traits which refer to the presence of a profuse and distinctive short blade assemblage as well as a range of distinctive bull figurines. It appears increasingly that there may have been a tradition of Black and Red wares which were similar to the Ahar complex and derivative of the same which existed prior to and even alongside the Malwa culture in various zones. While regions along the Chambal appear to document areas where the Malwa culture succeeds such a distribution their coexistence and transformation alongside the Malwa is documented at sites like Besnagar and Ujjain.

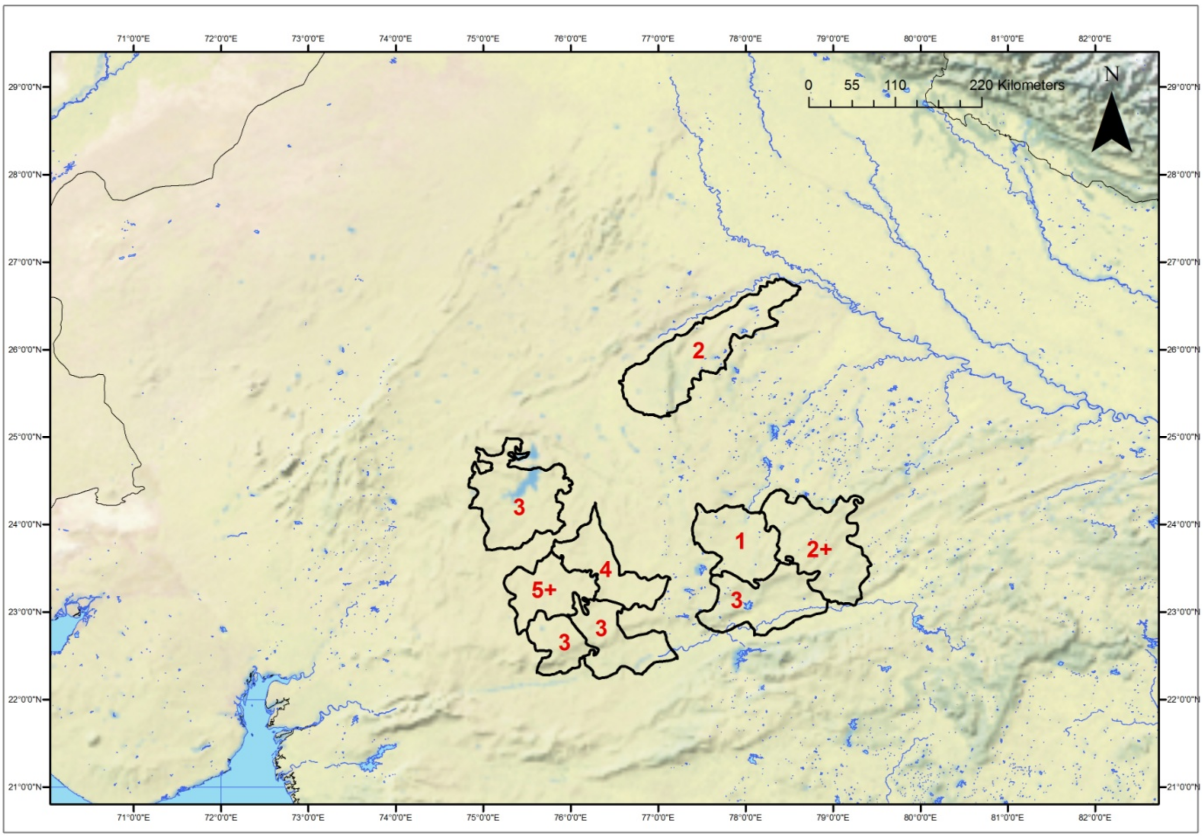


Figure 3-20 A district polygon plot of the known distributions of Malwa culture sites reported from North of the Narmada. Clearly the survey data is inadequate for any attempts to delineate the margins of the culture and prevent us from entering into any discussion about the manner in which the settlement patterns of the complex may inform us about the various regional complexes within this cultural group.

In trying to characterize the Malwa culture it is clear that some of the sites of this culture are perhaps amongst the largest in any part of Central and North India at certain points of time in the second millennium BCE. These sites must be central places and at the apex of complex settlement patters about which almost nothing is still known. The discovery of similar and yet distinctly new cultural traits such as megalithism and Urn burials in special palas-leaf impressed urns at sites like Chichali have further complicated the cultural landscape of these regions of the Madhya Pradesh. The impression which characterizes the Malwa ware culture in my opinion is that of a clearly integrative culture and one which is marked by significant forces of socio-political organization which are evidenced in more obvious records in the material culture than have been part of the trajectory in other regions. The existence of truly large sites dominating the settlement hierarchy is only one of these features, the other prominent features being the presence of a mud rampart at Eran, which appears to have been a significant earthwork, and one which was not aimed at protecting the site from the river Bina, which it does not seem has had any history of floods in such a scale. It also appears that for large areas of Central Madhya Pradesh, from Raisen to Sehore and till Hoshangabad the Malwa culture may have been a significant episode which integrated and brought considerable

cultural change to the large zones where prior to this period only microlith using foraging communities had been evidenced. This is a transition which is complex and difficult to understand at present but may be one of the most significant trajectories of interaction and social transformations in the central Indian region. Another equally remarkable and often unconsidered element of the Malwa culture is the repeated presence of apsidal structures at excavations at its sites which have often argued to have been shrines. The excavated data seems to have been definite and if this is the case the ordering of social life, practices and spaces in the Malwa complex would appear to be amongst some of the most complex and structured patterns known for the period.

Furthermore, the Malwa culture over the course of its chronology which is roughly placed as a short period form circa 1500 BCE to 1200 / 1000 BCE appears to have been a cultural phenomenon of a considerably integrative force which welds together different regions in strong and weak forms of participation in similar forms of material culture. A more detailed study would no doubt reveal more significant and closely studied aspects of these transformations as well as those which seem to attend upon its decline and the subsequent set of cultures. This is something which was not possible within the scope of this dissertation and furthermore on the basis of a preliminary enquiry there seems to be little scope of generating a new and insightful picture without considerable field work. The aftermath of the Malwa culture appears to have been marked by the coming of the Jorwe culture in certain parts particularly those closest to the Ujjain region and other parts of Madhya Pradesh are broadly seen as passing over to a ceramic phase which is usually defined as a Black and Red ware typical of the Early Historic period.

As is clear, the transformations evident in these parts of Rajasthan and Madhya Pradesh alone are testimony to how there are large areas about which very little has been established in terms of the basic cultural-historical alphabet which had been set as the target in 1947. Without an understanding of these cultures it seems unlikely that we shall be able to comprehend a fully rounded picture of the transformations which are at work upon the cultures of the region.

The case of Bihar was perhaps the one which was most surprising when this study was undertaken. A number of encyclopaedic reference works exist for Bihar but as they date to an earlier period their thrust is more art-historical and usually they do not serve as an adequate data source upon which an atlas such as the present could have been built. Quite alarmingly, for a region considered so important and central to the history and archaeology of the Ganga basin there has been very little survey work in the area and outside the dozen or so excavated sites there are only two regions which present us with enough landscape level data to come to a comprehension of settlement

trends. There is some level of documentation for districts Rohtas[232] and Sitamarhi[233] which have suggested that vastly separated parts of the state, including regions North of the Ganga may have had considerable settlement and increasing populations over the course of the period. The situation in the adjoining regions of Jharkhand and Chhattisgarh is such that there even ascertaining a basic cultural sequence for many parts is still not possible and any connected account still a desideratum. Nonetheless it seems clear that microlith using complex foraging societies which were known to exist in the region, undergo manifold transformations and at least two clear trends can be seen as emerging. In the Jharkhand and Raipur region is appears to be quite clear that some form of village settlement networks are forged and these may have has significant connections with the adjoining lowland cultures in the Damodar and Sanjay valleys in Neighbouring West Bengal as well as with newly discovered cultures in the Orissa highlands. Further south in Chhattisgarh, more complex phenomena are witnessed in the emergence of what is an extremely ill-documented complex of massive megalithic complexes in district Durg. At sites such as Kakrabhat, Lilar and Bhawarmara vast Megalithic complexes of up to 1000 monuments in each have been described. The excavators have provided a typology of up to 8 styles of monuments which are varying configurations of dolmens cairns and menhirs and the excavations have demonstrated that even from a sample of the monuments a range of grave goods in Gold, Silver and Iron alongside a red ware ceramic assemblage are known. While a radiocarbon chronology is not available the excavators have suggested that the complex dates to circa 1000 BCE. The scale and concentration of this complex clearly represents the formation of a major regional culture which is at present known only from what appears to have been a central and meaningful anchor in a complex sacred landscape.[234]

The archaeological trajectories of the erstwhile undivided Madhya Pradesh region are thus far from clear in the period under discussion and in many ways have served to highlight just how well documented in comparison the archaeology of Uttar Pradesh is and the degree to which it has presented a dataset adequate enough for a discussion as has been attempted above. Nonetheless the data is only sufficient from all regions to be suggestive of trends and I argue that as and when more intensive survey techniques cover large regions they may alter and completely change the dynamics which are suggested here. It is for this reason that densities of sites, while often displaying a considerable trend have been generated in the course of this exercise they are not entirely useful in the consideration of social processes which are at work.

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[232] Explorations conducted by B.P.Singh as part of the Senuwar project. IAR 1985-86, p

[233] Dubey, Sitaram "Sitamarhi Zile Ka Puratattvik Sarveksana" *Pragdhara*, Vol. 15, p.249-256

[234] IAR 1990-91, p.36-39 The exploration and excavation program was led by A.K. Sharma and S.B. Ota

Modelling social systems from landscape or regional data is something which has been attempted only sporadically in Indian archaeology.[235] In the course of these studies too it has been a difficult problematic for the surveyors to define the manner in which their studies represent the total archaeological presence in the region, as all of these efforts have been jeep based surveys which cannot hope to cover the areas they 'explore' exhaustively. Further, the estimation of site sizes has generally proceeded upon somewhat undefined and casual approaches by which mounds have been surveyed and surface assemblages addressed. The most recent survey of the Ganga basin has taken an extremely pessimistic view of the ability of surveys to arrive at any idea of site sizes for different periods and has instead only stressed a procedure which identifies the earliest and last settlement that can be established for the site and posits a total estimate of site size, however the course of evolution to that size may have been for the mounds. I argue here that the processes of encapsulation, erosion and increasingly aggressive processes of soil quarrying and of the conversion of mounds to agricultural land pose very serious challenges to the manner in which the evolution of sites can be modelled. Yet, the difficulty should not be taken as a matter which is insurmountable and as chapter 5 here hopes to demonstrate different methodologies, as have been practised in other parts of the world for some time, can effectively tackle and provide meaningful data for even such large, mounded sites which often display continuity over periods of circa 3000 years. The generation of such data across different sectors of the Ganga basin shall help us shed the culture-historical and evolutionary categories which frame our understanding currently and help us build towards characterisations of the societies and the making of their regions in a more diachronic manner and upon trends which are based on archaeological trends.

This prolonged examination of the cultural history of the Northern half of the subcontinent has stressed that there comes to exist in this period a mosaic of different cultures across the Ganga basin and in the Vindhyan and Aravalli regions. These cultural developments have been demonstrated to have been elaborated within a World where there are many elements of shared cultures and exchange networks which are in evidence over the second millennium BCE. Instead of tying these developments down to any evolutionary ladder of presumed universal sociological forms and chaining them to the associations that come with terms like chiefdoms and states I have here chosen to highlight what our limited evidence presents about the coming together and formation of distinct cultural units in different parts of this large region. I argue that here it is perhaps important to recognise that the evidence within large geographic zones may present varying trajectories within a larger zone of interaction. Thus while the PGW and the Malwa culture present clear and distinct

[235]Makhhan Lal, *Settlement History and Rise of Civilization in Ganga-Yamuna Doab, from 1500 BC to 300 AD* (Delhi, BR Pub. Corp., 1984). V.Shinde, *Early Settlements in the early Tapi Basin*, (Delhi, Munshiram Manoharlal, 1998)

trajectories of being Integrative cultures in this period others present more complex forms of cultural transformations. The Vindhyan complex, appears to enter a geographically expansive phase and the ceramic assemblage which has been taken as definitive may actually encompass related and interdependent but considerably different complexes. Thus both labels for the culture, Vindhyan and the Kakoria-Koldihwa complex appear to not be adequate descriptions. While these processes are active, other cultural groups such as the 'Bihar Chalcolithic' and those of the Sarayupar appear to present a face of closely interrelated assemblages where boundaries are extremely hard to draw. Localised cultural expressions like the Narhan are thus of considerable significance in the manner in which we can understand the cultural processes of this region and the effort to define distinctive identities in material culture.

It appears clear that in this world, identities would have been complex and based on a deep sense of community, place and tradition and they would have been like the world around them in a process or negotiation and constant transformation. I argue that this is a position which it is extremely important to understand and come to as it is quite diametrically opposed to a position of polarized primitive and peripheral native populations increasingly acculturated in the wake of Aryan migrations. Each of those markers are social records which can be investigated with regard to the archaeological evidence; community emerges in the repeated patterns of behaviour and assemblages such as has been argued for the case of the Adwa valley. Place again, refers to a sense of landscape and region which surveys can hope to document and record vis-a-vis discreet zones and exceptional places in past landscapes. The positioning of monuments such as the megaliths or the clustering of distinctive material culture like the Narhan along the Kuwano are examples of such records. The earlier sections of this chapter have argued at length about how this emergent cultural diversity arises from what appear to have been two or three broad sets of early assemblages of the third and fourth millennium. The later cultures share many of the sites and further a number of these do not present any breaks in occupation. Detailed studies like those of Senuwar have demonstrated that while some changes are rapid, like those in crafts and even in food habits, other like ceramic traditions are more stable and change only slowly. It is against such a background that the integrative and transformative force of cultures like the PGW should be framed and understood and I argue that as more detail attends the archaeology of the Ganga plains it is such processes and records that will be brought to our attention and contemplation.

It is an open question as to how these various groups relate to ethnicities, political formations and group identities. I argue here that without a more comprehensive documentation in the manner in which argued for above it is a thankless task to try and enter into such 'corroborative' efforts with

regard to presumed homogenous cultural groups gleaned from texts. The continuities demonstrated here also this argue against a general 'break' which forms the basis for most considerations of complexity and the consideration of cultures. This is the supposed transition from a proto-historical period to what has been termed the 'early historic', a transition which is a historiographic construction alluding to a period where some archaeological cultures can be considered in the light of literary texts an analysis and reading of which now becomes the primary source and guide to understanding historical developments.

Criticisms of this break and the manner in which it has been understood are plentiful, but one aspect of its construction is the manner in which it serves as a device to cut away less meaningful prehistoric and protohistoric periods from one which is meaningfully and crucially linked to the emergence of cities, urbanism and civilization. This break has so often been correlated with the presumed coming of Aryan populations that it has become almost a routine matter to not consider any other possibility, such as the visualization argued for above. The linkages to what have been prioritized and labelled as the only significant changes in the inhabitation and settlement of the Ganga basin are thus those which are linked in a chain of textual interpretation and migration of Aryan groups. I quote here an opinion of one of the few and authoritative authors who has considered the question of Urbanism in the Ganga basin as it serves to illustrate the dilemmas at hand and also serves to highlight the vastly different picture which this discussion has attempted to highlight.

> In the case of the Ganges Valley it must be emphasized, that regardless of the theoretical merits of stressing societies capacity for internal evolution, the intrusion of the Aryan tribes into the indigenous cultural system, for which unassailable evidence exists, forces us to give prominence to an extraneous factor. To some extent this will save us considerable embarrassment, since so little is known of the indigenous cultures of the Ganges Valley that to base any theories on their internal development would be preposterous. It is equally clear, however, that the latter's' presence, which has been established through archaeological fieldwork alone, can no longer be ignored, as in the past. On the other hand much more fieldwork is required before a thoroughly documented explanation of the cultural evolution of the Ganges Valley can be offered.[236]

I submit here that all models, even those which seem to have struggled with an recognized the problems have stumbled at the gates of the metanarrative. The unassailable evidence referred to above, hardly appears as such today and instead almost every aspect of its construction can be demonstrated as questionable. The next section shall attempt to describe the Ganga basin and the

[236] George Erdosy 'The Origin of Cities in the Ganges Valley' *Journal of the Economic and Social History of the Orient*, Vol. 28, No. 1, (1985), pp. 81-109

others regions of North India which this discussion had contemplated by entering into a discussion about the NBPW culture and the questions of Urbanism, both of which present exciting and complex issues.

XIII. The NBPW: Origins, Distribution and Implications

Upon its first 'discovery' and recognition as a sophisticated and distinctive ware of the North and Central Indian region the refined highly polished and exceedingly fine ware which came to be called the NBPW had several claims made upon it. Like anything with a hint of refinement, it was argued that the ware may have had an origin either in the west or was born from western technologies and the evidence from Taxila where its age was gauged in depth below known and dated Alexandrian contexts. Thus a date of circa 500 BCE was arrived at for the culture which has served as a peg upon which a whole host of other associations, those of urbanism, coins and a range of secondary goods 'typifying' this second urbanism have been hung. This dating itself, while not being secure, became all the more contentious with the baggage of these associations. The primary reason for this has been the Wheelerian paradigm of recording floor levels closely but interpreting material cultures only in terms of broad periods of marked change. Thus NBPW deposits which at some sites are upwards of 2.5 metres in occupational deposit were chained to this association with urbanism and a received wisdom about its chronology and commencement.

A somewhat circular chain of logic has thus informed the consideration of this culture. Early excavations served their purpose excellently in the delineation of what the typical assemblage of this culture is constituted of. As this came to be read as a symbol and element of Urbanism the two came to be considered as a single package, even as many excavations began to document discrete phases within this period and the slow articulation of the whole set of earmarked traits. From the 1980's onwards there has been mounting evidence that even the revised chronology of circa 600 to 200/100 BCE is a chronology which is far too short for the NBPW. This upwards revision has been received again often with alarm and angry dismissal as it would appear to disturb chronologies of occupation, settlement, colonization and the emergence of Urbanism in the manner of the metanarrative. Indeed as Chakrabarti has argued there is a deep 'sociopolitics' to this debate and that its discontents are extremely revealing about the limits within which archaeological evidence has been considered permissible and what has been ruled out on grounds other than the evaluation of the evidence itself.

I argue here that despite a number of technical studies on the NBPW there is very little clarity on the nature of the techniques which were employed in producing its distinctive and extremely remarkable finish. In the lack of such investigation any number of hypothesis have been put forward about the creation of the ware, its technological predecessors and its original zone and region of creation. This state of affairs has in many ways bred much confusion and has allowed for the persistence of ideas about the ware which appear to be quite faulty. My own discussion here shall initially try and clarify issues about the date of the ware and posit my own understanding of the chronology. Further I argue that by examination and a study of the ware alone and its associated wares by hand study and using a simple 10x hand lens a number of observations can be made about the technology behind the production of the ware.[237] Lastly I argue on this basis that it is indeed possible to parse out phases of the NBPW era and suggest a hypothesis on its creation and its subsequent expansion outside of what appears to be a definite zone.

The technological sources of the NBPW tradition

As the previous sections of this chapter have argued the production of wares fired under reducing conditions, and in kilns which appear to have been carefully constructed and monitored is something which appears to have a long history in the Ganga plains. The many Black and Red wares, the PGW and the Black slipped wares all seem to have required special kilns which would have produced such favourable conditions for reduced firing and that the special finish and appearance of many of the vessels appear to have related closely to the manner in which the vessels and fuel concentrations were arranged inside the kiln. I argue here that it is the failure of Indian archaeology to have produced good descriptions of kilns and arrive at understandings of the technology at work which has failed to provide us with good documentations of the craft processes, their specificity and their uses.[238] In the absence of such documentation I argue here that a range of practices can be presumed to have been in existence and some of these, for example those involving the fine Black and Red ware dishes of the Noh-Atranjikhera complex and the elaborately painted Black slipped

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[237] I must stress that my observations are based on a study of the 5,000 odd sherds of the NBPW from Kausambi curated at the Central Antiquities Collection, New Delhi and additionally upon further specimens curated at the Prof. G.R. Sharma Memorial Museum as well as from circa 3000 sherds from two small locations at the site of Kausambi itself. While this constitutes a large sample in terms of sherds I am extremely aware that it is not geographically diverse. Nonetheless the discussion below draws upon the study of these collections and bases its evaluation of the NBPW of other sites on this basis.

[238] Gaur, R. C. *Excavations at Atranjīkherā : early civilization of the Upper Gaṅgā* Basin (Centre of Advanced Study, Dept. of History, Aligarh Muslim University ; Delhi : Motilal Banarsidass, c1983) and M.D.N. Sahi, chapter titled 'Excavations at Jakhera, 1986-93,--a brief report' in his *Aspects of Indian Archaeology* (Jaipur: Publication Scheme 1994) Far more detailed and significant documentations of pottery kilns have been made by scholars operating with a different tradition of excavation for example Richard H. Meadow (ed.) *Harappa excavations 1986-1990 : a multidisciplinary approach to third millennium urbanism* (Monographs in world archaeology, Prehistory Press Madison, Wisconsin, 1991)

wares of the Sarayupar may be considered as examples of wares whose production and firing both were extremely skilled activities.

One of the early and major technical studies on the NBPW established one major trait of the ware. It suggested that both the body and the extremely fine slip were very similar in composition and were rich in their Iron content, a trait which may have had something to do with the fine black colour which the sherds attained. Hegde's work however further went on to suggest that in terms of paste and firing the PGW and NBPW were so closely related that they were distinguishable merely by the application of a different slip on the NBPW. This argument has since formed one of the basis upon which a genetic link between the two wares and thus between early Aryans and more complex settlers of the Ganga basin has been premised upon. I argue here that Hegde work, while pioneering and foundational was based in far too broad a consideration of similarities and ignored many other possible candidates in the search for wares technologically similar to the NBPW. In this sense his work thus also succumbed to the weight of the metanarrative.[239]

More recent studies of the NBPW by Robert Harding using Scanning Electron Microscopes have further qualified and challenged the suggestion that the extremely distinctive NBPW slip is very similar to the body paste in terms of composition. Harding's study has documented that NBPW sherds bear double slips, an underslip which was about 10 to 14 microns across was capped by a second slip which was documented to be only 'about a micron' across. Harding importantly documents that the body itself bears a compaction layer, indicating burnishing prior to the application of these fine slips.[240] Harding agrees that the manner in which the uppermost slip was applied remains to be established and suggests that either the vessels were dipped into a very fine suspension for this purpose or it is possible that this slip was wiped onto the sherds. I agree here that it is clear that many NBPW forms are burnished/polished clearly by the process of wiping with a cloth as tell-tale marks are often visible to the naked eye and that Harding's suggestion is indeed plausible. Harding has argued that this extremely fine suspension which approximates a single layer of clay 'platelets' is the key to the gloss and shine of the NBPW surface as in such a fine layer they appear to align themselves and present a surface which would reflect light extremely brightly. Harding's work has further established that the body, while containing Iron in proportions ranging from 2 to 6 % which he demonstrates is clearly lower than the Iron content in the slips, which ranges

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[239] K. T. M. Hegde, "The Painted Grey Ware of India" *Antiquity,* vol. XLIX (1975), pp 187-190

[240] Larger samples than Harding's 5 sherds have been extensively studied by a team at the University of Baroda but these results have not been published as yet. Nonetheless it is known that they too suggest the presence of double, triple or even multiple slipping.

between 18 to 10 % and may bear some relation to the colour variation effects achieved by the potters within what is subsumed by the umbrella term of the NBPW.

The significance of what Harding terms his interim results, cautioning that much further work needs to be done, is nonetheless extremely significant and form the platform upon which the discussion here shall proceed. I argue here that whenever the NBPW has been discussed in excavation reports, the emphasis of Indian archaeology upon large categories of wares, and large time periods has meant that variations which have often been very closely observed by the excavators have not been described as extensively as they were perhaps perceived. Thus when describing the variants of the NBPW and the range in which it is present at a site usually the description has proceeded in terms of highlighting the different colours in which the ware is present and if the case is also such then a description of how in its last few layers the ware is thick and not as lustrous. The range of colours which include types described conventionally as Indigo/Blue, Red, Crimson, Silver, Gray, Golden, Bronze and occasionally even in an Orange shade are all significant and deliberate manipulations of the elaborate slipping techniques which have been documented by Harding to produce a significant range of fine variants. These I argue have often been taken to be an index of the early and emergent NBPW and were the primary basis for the arguments about sites in Bihar being the original zone of creation of the ware. I argue here that this may not be the case and in fact this masterful manipulation of the technology would perhaps indicate a more mature phase rather than a nascent one. It is also important to note here that there are additional variations, one of which includes the remarkable ability of the potters to produce designs in two of the shades as detailed above upon a single surface, a variant which has aptly been named the ‘Bichrome NBPW’ as the ware is not the produce of the any painted decoration but it appears to have been a product of elaborate surface treatments and modifications of the slip as well as special firing conditions. While this distinction has not always been made there is also a tradition of a painted NBPW ware, which appears to have been closely related to a known category of similarly slipped and painted terracotta figurines. In both these classes of artefacts it must be mentioned that there is the known use of a tan coloured paint which is applied in thick and short strokes. The colour itself appears to have been clearly designed to have had a pleasing contrast against the black glossy surface of the NBPW and has been created in a durable fashion so as to be able to both be firmly affixed to the glossy surface and be resistant to water and presumed processes like washing. As shall be argued below it appears that both of these types may have had discrete and congealed distributions in space and time and may in fact be quite useful in the future as markers if this is indeed the case.

The received wisdom on the NBPW generally distinguishes between an early and late phase by arguing for the presence of degenerate NBPW in a later period, marked by thicker sherds, often with the NBPW surface on one surface alone. This is a trend which has been widely reported but has not been successfully confined to shapes nor has it been quantitatively established. For the early period similarly a range of assertions have been made regarding usually the fineness of the sherds and their thinness. While again these trends remain un-quantified they seem to be generally upheld at most sites but are again a weak and loose definition of what the early NBPW is. As I shall argue below, clear and definite indicators of the early NBPW can be established and that these need to be clearly argued for, debated over and examined if we can even begin to come to terms with the massive phenomena.

Prior to Harding's study and demonstration of the technology of the NBPW a number of hypothesis about the tradition it emerged from had been suggested. As the previous section has argued the weight of interpretation upon the PGW in all narratives constructed about ancient Indian history fed into the general expectation that the NBPW would have emerged out of similar technologies. In recent years the suggestion has been made a number of time, most recently on the basis of stratigraphic observations at the site of Jhusi, that the Black slipped wares of the Eastern Ganga basin present a much more probable candidate. As has been argued, the Black slipped ware forms as the dish type and the increasing refinement seen in them often approximate the NBPW in their fineness, especially in chronological contexts of the early first millennium BCE. It is unfortunate that no technological studies have ever been carried out upon these Black slipped wares as they would undoubtedly yield clues and demonstrate what the links, is any, are between the two wares. At present I argue here that the NBPW does seem to clearly emerge out of this tradition, but a more nuanced understanding of this must await detailed and technical studies of both wares, preferably from the a site like Jhusi where technological change over a period of time seems to be in evidence. Preliminary and hand examination of the Black slipped wares suggest that especially in the production of the refined dish types similar routines of multiple slips and wiped-polishing techniques may indeed be in evidence.

It has been widely presumed that since the Black slipped ware too is a product of firing under reducing conditions and that this also constitutes a major link between the wares but until definite evidence in terms of the mechanics and arrangements of firing is forthcoming this is perhaps too wide a reference. I argue here that on the basis of the variability in slip effects, particularly as observed in sherds which bear slip-defects or mis-firing effects from both the wares that there also may be significant departures in the NBPW from the previous range of slipping techniques and slip

chemistry itself. The Black slipped ware itself is known to have been found in the eastern complex only upon the reduced fine gray wares, suggesting that the slip reduces to the a black colour as well and is not produced and applied in that state. In this it is indeed similar to the NBPW but only in the broadest sense. The Black slipped wares clearly demonstrate a different quality of slipping, which even when highly burnished can be scratched easily and erodes off far more frequently than is known in the NBPW which is known to 'chip off' and detach in flakes rather than erode away. I argue here that the Black slipped wares that we are concerned with here demonstrate a range of slip defects and firings which extend to various shades of greys and relate probably to bad applications of slips as well as of variable firing conditions. I argue here that this is a marker of the limits of that technology, both in terms of the slipping technology and perhaps also in terms of the temperature, regulation and construction of the kiln environments.

The NBPW presents an altogether different case in almost every aspect that was considered above. While the Black slipped wares are notably fine, much of the NBPW sherds in bowl forms and dishes in particular present variants which are often only 5 to 6 mm at their very thickest and the base portions of dishes has been known to often been thinned to within the 3 to 4 mm range. Such concern with thin and fine vessels is unknown in any other ceramic ware across almost all South Asian assemblages[241] and is a considerable marker of the attention and exertions of the potters as well as being a cultural manifestation of the ideals of refinement and ceramic crafts. In the range of forms however it does appear that the NBPW shares a lot with the Black slipped wares and the range of Bowls, Dishes and Basins seem to have been an initial roster which was further expanded and many more types added. It also appears that we are still documenting the full range of vessels which were given the NBPW treatment and that at certain points of time the ability to produce the NBPW finished effect was mastered to an extent to enable its application upon vessels which had hitherto been produced only in the plain and slipped 'utilitarian' red slipped wares. Such forms include vessels like the Karahi and the Handi and are suggestive of the extensions of the ideas of table-wares to further classes of vessels, like containers to be served from, which in this case closely mimic the actual cooking vessels.[242]

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[241] To the best of my knowledge only the Mughal 'paper thin gray ware' described from the Purana Qila excavations and those at Fatehpur Sikri, are close to such levels of elaborate concern with the thinness of the vessel walls. I have not handled the Nal ceramics but discussions suggest that certain bowl types in that assemblage also approximate such degrees of thinness

[242] Recent excavations at Agiabir have provided an example of the further range of NBPW types by documenting the find of what appears to have been a Karahi or Basin type with a strapped handle. Vibha Tripathi and Prabhkar Upadhayay, 'Further Excavations at Agiabir 2005-06', *Puratattva*, No.37, 2006-07, p.121-30

An examination of the NBPW from Kausambi

If we are to understand the technologies of the NBPW closely I argue that it is important to closely document the range of variations which are present and try and document the variability amidst criteria such as the range of internal and external surface treatment variations, their association with specific forms and the chronological range of these. If such a study could be established for even one site it would help clarify the picture tremendously. My own study of the NBPW from Kausambi is an effort in this direction and the following observations on the NBPW are based upon this.

A good entry point into the consideration of the NBPW at Kausambi is that the preceding complex is known to have been a manifestation of the 'Vindhyan Chalcolithic' or the Kakoria-Koldihwa complex. Thus the NBPW represents a cultural transition here which has not been theorised in Indian archaeology. Further, similar evidence from the nearby site of Jhusi has argued that the NBPW in this zone is amongst the earliest known, and it may actually date to the 9th and 8th centuries BCE. The site of Kausambi provides a tremendous opportunity to study the NBPW for the reasons that the site demonstrates a massive concentration of the ware, suggesting that this was a site where the ware was actually being produced. The known range of variations at Kausambi match and as shall be demonstrated below, exceed the range which is usually mentioned in ways which are crucial to the manner in which we understand this ware. Further, the site is significant because the excavators made a series of observations on the ware and its origin which have subsequently not been raised nor debated, even though the excavators adduced stratigraphic grounds for these. G.R. Sharma et al argued that "It is, however, noteworthy that the earliest evidence of lustrous black polish is not furnished by the bowls and dishes which this ware shares with the PGW. The Polish occurs for the first time on the external surface or the small vases of red ware" At the same time they also conceded that the Painted traditions on gray wares seemed continuous through the two periods.[243] This is an altogether unique observation and one which challenges the ways in which the NBPW has been thought about. Sadly while some such specimens were located amongst the collections of the Prof. G.R. Sharma memorial museum their provenience could not be established and thus the project of revisiting this observation remains. The survey project which was part of this dissertation did encounter a few vase/ globular pot fragments which indeed did bear an atypically polished surface. A single specimen of a uniquely formed yet fragmentary vase did suggest the possibility that a class of vessels was prepared from an extremely fine paste and provided with a thin slip and extremely polished appearance. Without the further study of these objects this observation itself

[243] Sharma, G. R, *Excavations at Kausambi (1957-59) The defences and the Syenaciti of the Purusamedha* (Allahabad: [Department of Ancient History, Culture & Archaeology, 1960) p. 59

cannot itself be revisited but it does appear that a significant note of shifts in either polishing of surface treatments in general had been recognised.

An observation which has a far more apparent and clear bearing on the NBPW was made by Dr. B.B. Misra, who served for a long period as the Curator of the Allahabad University's Prof. G.R. Sharma Memorial Museum. During his tenure he embarked upon a massive project of trying to study the excavated ceramics from Kausambi by each spit or dig for every single trench. His notebooks and his comprehensive schema of types which he was in the process of recording for each of these locations, as well attempting a quantification of all diagnostics and NBPW are curated at the Museum today and are the record of a truly unique project. Dr. Misra's system had included a comprehensive division of the assemblage into 13 classes of vessels within which he had proceeded to clearly mark variants, observing and defining even subtle changes in rims and was in the process of building up a dataset to display these trends by locus and stratigraphy. Sadly while it appears that Dr. Misra had completed certain sectors of the site, the massive nature of the excavations at Kausambi and the equally rapid and continual progress of the Department of Ancient Indian History, Culture and Archaeology towards other excavations prevented its completion and publication. I have been privileged to have consulted some of these notebooks and discuss elements of these with Professors J.N. Pal and M.C Gupta. Dr. Misra had observed that amongst the variations displayed by the NBPW at Kausambi a distinct and repeating class was the presence of a type which had a mottled black and red surface. It is to Dr. Misra's credit that he duly recognised this as a distinct phenomenon and not just a matter of a slip defect or unworthy of attention for any other reason. Dr. Misra gave this ware the name of the 'Blotchy NBPW' and this is the name that I shall use in his honour.

The Blotchy is a type which is regularly available at Kausambi without being profuse and while a full and detailed study of Dr. Misra's notebooks and indeed of the massive ceramic collections at the Prof. G.R. Sharma Memorial Museum would help establish its stratigraphic context that too has not been possible at present. Nonetheless it is clear that the occurrence of the type is a consistent present and not just a marker of a bad batch of production and thus appears to have been a phase in the history of the NBPW. For the study of this type special attention and care was taken during the Kausambi survey which this dissertation attempted and its locations and occurrence were carefully documented wherever present. This Blotchy NBPW is independent of degraded pink and gray specimens which are often adduced from the final phases of the NBPW and I argue here that the Blotchy NBPW represents an early stage in the creation and manufacture of the NBPW.

Figure 3-21 presents a selection of such sherds and I argue that they reveal important indicators about the technology of the NBPW, the qualities of its slip and the challenges of producing it. The presence of the blotches on the surface of the NBPW, which are uniformly red and thus appear to have been oxidised while the rest of the surface has been reduced to a colour black appears is the feature which makes this class distinct and definite type. This failure to be reduced to what is clearly the desired black finish appears to occur for a number of reasons: the most common of which appears to have been disruptions of the fine suspension and the second and extremely thin slip which Harding has described. It appears clear that these wares were fired in a closed kiln and with a packing of fine organic materials which are often the cause of the breaking out of these patches of red as Figure 3-21 Sherd B demonstrates. As Figure 3-21 Sherd A demonstrates small presence of such blotches appear to have at times developed in parallel alongside the wipe marks which had been left upon the surface of the sherd, either at the time of the pre-slipped stage burnishing or in the very application of this final slip. Figure 3-21:E represents a highly magnified inset of the surface if one of these sherds and demonstrates that the blotches appear at many scales including almost bubble like formations which are significantly smaller than even a millimetre in diameter. These are all features which do not occur on classic NBPW sherd of either the plain black type or of any of the colour variations which were enumerated above. Further as Figure 3-21: sherd C suggests this was a significant artefact of a certain stage of production and required technological solutions to overcome.

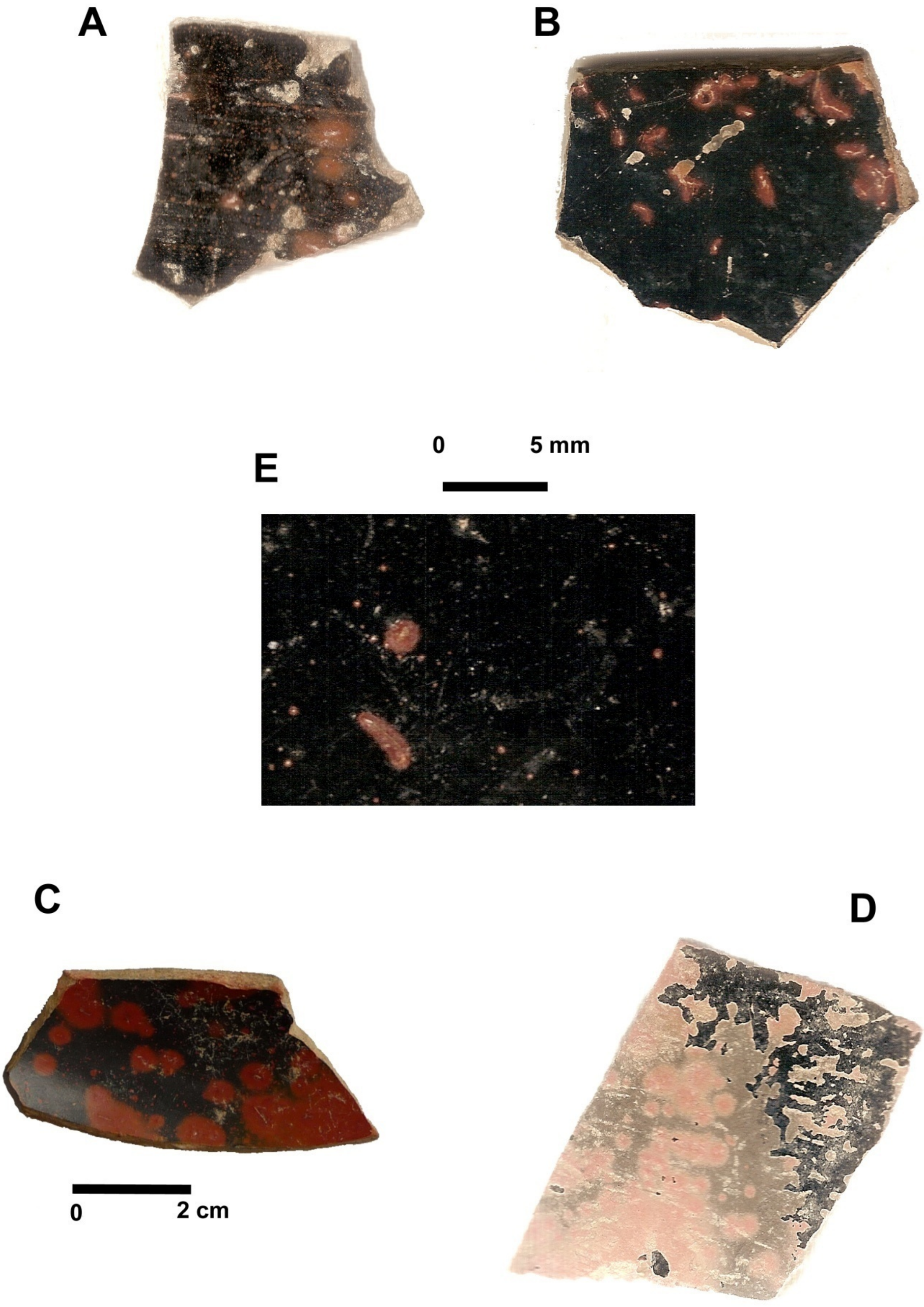


Figure 3-21 A selection of Early 'Blotchy NBPW' sherds from Kausambi. E is a view of the surface at high magnification. Sherds A, B and D have been similarly magnified and are all originally around thumbnail sized. Specimen C is much larger and has been given its own scale for reference.

Figure 3-21: Sherd D represents other dimensions of the Blotchy ware by demonstrating that the phenomenon is not linked merely to the surface of the sherd and that the manner in which the slip is oxidised or reduced is then linked to the manner in which the under slip and even the whole body of the sherd undergo firing. As D demonstrates these facets are especially visible when the fine surface chips off and reveals the under slip and the body of the sherd.

The experience of the Blotchy NBPW thus suggests that the creation of the NBPW involved not only a considerably different slipping technology but also demanded the devising of new and more elaborate reducing kiln designs. It is unfortunate that Indian archaeology has not documented production contexts when they were encountered in excavations and thus we know very little about any ceramic production in the Ganga basin. The case of the NBPW is different as until recently no production centre had ever really been identified, but excavations by the BHU under the direction of Vidula Jayaswal have reported such a complex at Ramnagar near Banaras on the Ganga and the full publication of those investigations should further throw light upon the issue.[244] Until then it is important to note that even in the case of Black and red wares and Black slipped wares it appears that elaborately prepared covered kilns, located in the forms of pits and then closed over with organic materials and cow dung appeared to have been probably fulfilling the needs. In the case of the NBPW, on many grounds it has often been suggested that a closed container, within which vessels were carefully stacked may have been involved and the evidence of the Blotchy NBPW too also suggests that some kiln was devised which could yield a highly controlled reducing environment. Further the production of the NBPW may also have involved temperature scales and ranges which were previously not required in the production of the Black slipped wares.

During the course of the Kausambi survey it was a marked and noted trend that the Blotchy NBPW occurred in only those zones which were known to have yielded evidence of the preceding period of the Vindhyan Chalcolithic. In one of these zones where the surface assemblage appeared to be yielded consistent indicators of the presence of an exposed early deposit as either wares such as the ripples storage jar class were also available other wares which have not been as often reported were also encountered and studied. A consistent type here was the presence of a fine Red ware, known in an extremely fine paste, with little or few inclusions and with extremely well finished surfaces. The surfaces seem to have born a gloss and smoothness without being specifically burnished after the slipping process. In all manners thus the ware seemed to resemble the NBPW and was further identified in a dish and bowl type which are also very similar to forms known in the NBPW. This is a type which I have learnt is also known from Jhusi and represents a tradition of fine Red ware dishes

[244] Hitherto only a brief summary of the findings has been published in Bharati, the journal of the Department on ancient Indian History, Culture and Archaeology at the Banaras Hindu University.

and bowls which is known from the Vindhyan Complex.[245] This I argue represents a strong link, even if on fragmentary and little reported evidence of a link between the two complexes. As the survey also documented such dishes were often adorned with simple paintings in a manner quite similar to the other contemporary wares and suggests that these dishes were important components of the assemblage and may not have just been plainer types produced in simple red wares, a manner in which they have often been considered.

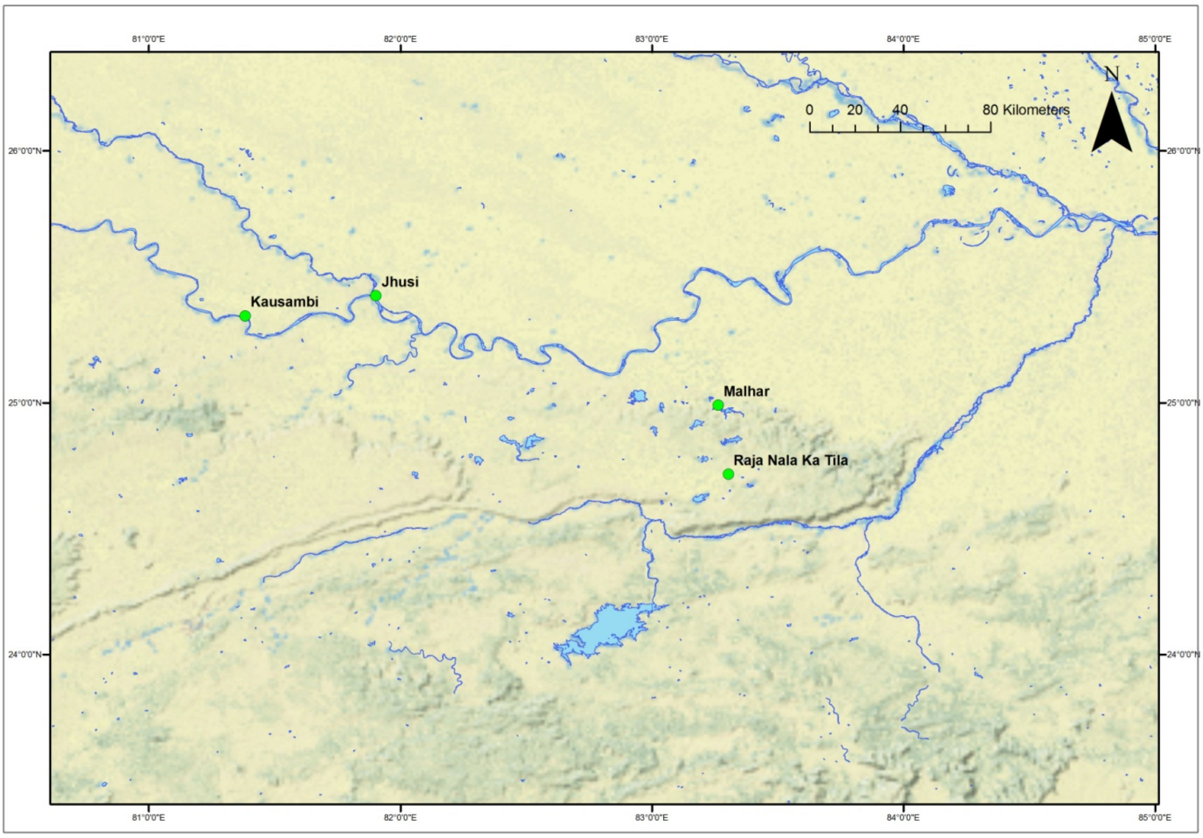


Figure 3-22 Sites where the Blotchy NBPW has been reported from

The arguments which this section has been presenting amount to the following thus far: at Kausambi the Blotchy NBPW presents what is perhaps an early and transitional form in the production of a new ware and represents a clear period. There are trends in the assemblage which suggest that the ceramic traditions at the site were interested in producing fine dishes and bowls and a brief phase may have also seen the use of slipping technologies similar to the NBPW with the difference that the vessels were subsequently fired under oxidising conditions and present orange-red fine surfaces. A problems exists in taking these arguments outside of the Jhusi and Kausambi area as it is not clear whether these types have specifically been recognised and reported or not. I argue here that despite

[245] I am deeply grateful to Prof. J.N Pal for a discussion on the significance of these wares and the status of their reportage. This is the type which has occasionally been reported as a Orange colored NBPW, although it appears that variants of a red colored variant may too have been reported as such.

the usual lack of such attention, the close attention paid almost everywhere to the NBPW suggests that these types, especially the Blotchy NBPW may not have had an extensive distribution. This is something that would again appear to be parsimonious if the types does represent the emergent phase of the NBPW ceramics. It is thus of extreme interest that the only other sites from which the ware has been reported and acknowledged are the sites of Malhar[246] and Raja Nala ka Tila[247], which are known to have had assemblages extremely similar to the Vindhyan complex. I argue here that these are all, in concert, significant indictors of the zone and cultural group within which the NBPW was fashioned and produced. Additionally they also represent the limits of the initial distribution networks and the sphere within which it was exchanged, notably one already documented for a trade in early Iron. This observation is consistent with the present radiocarbon evidence and it appears to be one which should be borne out by further fieldwork as well as further clarification of the cultural content and the chronology of the early NBPW deposits.

Thus the significance of the Early Blotchy NBPW lies in its ability for us to make technological distinctions about the NBPW and come to an understanding of it in terms of changes and refinements in the craft rather than as a symptom of burgeoning transformations of social structures. My arguments here also seem to be consistent with an unease that has been expressed regarding the early home of the NBPW, which had been linked with the rise of Magadha and eventually of the Mauryas. Thus the NBPW was located as having arisen in Bihar, but as S.K. Jha notes does not seem to be upheld and his arguments in fact themselves directed attention towards the middle Ganga plains and the early chronological evidence from Jhusi.

A number of points can further be made about the NBPW and its technology and this discussion shall now enter into them before this discussion proceeds to a fuller consideration of the distribution of the NBPW across the Ganga plains and its relationship to the many cultural groups which this discussion has previously established as being extant in the region. A first discussion relates here briefly to the set of hypothesis which have been forwarded about the manner in which the paste for the NBPW was prepared. Two aspects of the paste have usually been remarked upon, its remarkable fineness and thus its laborious preparation and secondly the nature of its high Iron content. As Harding's study has documented the Iron content is high both in the paste and the slips and it appears that this is a major element in the function of producing the typical glossy effect and perhaps in aiding the reduction of the ware, although not much is precisely understood about the

[246] TEWARI, R., R.K. SRIVASTAVA, K.S. SARASWAT & K.K. SINGH 2000. Excavations at Malhar, District Chandauli (U.P.) 1999: A Preliminary Report, *Pragdhara* 10: 69-98.

[247] TEWARI, R., & R. K. SRIVASTAVA 1997. Excavations at Raja Nala-ka-tila (1995-96), District Sonbhadra (U.P.): Preliminary observations, *Pragdhara* 7: 77-95. And R.Tewari et al 1998. Excavations at Raja Nala-ka-tila (1996-97) District Sonbhadra (U.P.): Preliminary Observations, *Pragdhara* 8: 99-105

technology and chemical transformations at work here. T.N. Roy's efforts at reproducing the NBPW are important in this regard as they demonstrate the difficulties involved in achieving either of these characteristics for the paste. Unimpressed with the known levigation techniques and their ability to prepare the clay, Roy himself sourced sediment from the Varanasi water works which was clearly far more refined and fine. For the addition of the Iron content Roy suggested that a combination of Kabiz, an fluid substance derived from organic extracts known to the potters of Banaras and perhaps even the addition of elemental metals may have been a source. Roy's results are said to have achieved a product similar to the NBPW.[248] Hegde had previously suggested that forms of efflorescence known to be widely distributed on alkaline soils of the Ganga basin may have been generally used as this was in consonance with his idea that the NBPW slip was above all diagnostically alkaline.[249]

I argue here that while these foundational efforts have done much to established various traits of the NBPW and have made seminal contributions to the study of its technology, it is perhaps best to return to the ware itself to study the composition of its paste. This was a major part of the study I attempted for the collections mentioned but one which was compromised by the inability to study 'fresh breaks' from some of the largest curated collections. In the field at Kausambi, such specimens were of course abundant, and they were washed, studied and returned to context. I argue here that the paste of the NBPW is indeed as previous observations noted extremely fine. It often contains micaceous inclusions, present as tiny flakes, but this is born out of the nature of the alluvial clays of the Ganga basin itself and is thus not really a cultural inclusion by the potters. Apart from this occasional fleck of mica, I did not record any fine inclusion over the course of approximately 5,000 NBPW sherds studied for this purpose.

Surprisingly though when a different category of inclusion was present, it appeared in an extremely coarse presence of what appeared to be small pebbles and stones which were 4 to 7 mm in diameter thus often being almost as wide as the NBPW sherd itself. While initially I did not recognise this, at least two of the twenty-five such sherds betrayed a large pebble like this which could definitively be indentified as a small piece of Haematite. As far as possible it was attempted to go back and check whether the other coarse inclusions were similar, but the results of that were unequivocal, the pebbles either could be confirmed as small quartz grains of the sort known from channel sands or were unidentifiable in their context in the sherd itself. It is indeed possible that Haematite may have been used in the enrichment of the both the clay and the sherds as well and may be a probably source of the Iron content of the NBPW. It would appear to be very improbable that the Haematite

[248] Roy, T.N. 1983. *The Ganges Civilization.* New Delhi: Ramanand Vidya Bhawan
[249] Hegde, K.T.M.. Analysis of Ancient Indian Deluxe Wares, *Archaeo-Physika,* 1978, 10: 141-155

was ground and added in any way, rather I suggest that a soaking and straining procedure may have been utilized, one which is known is known to extract a ferrous solution from the Ore. I argue here that this is a trend and a possible lead which could be extremely significant. It appears that all the NBPW at Kausambi was locally produced, on grounds of a complete range of variants and more simply of the quite unmatched densities of the ware at the site. This is a region which is devoid of Haematite but sources are known nearby and across the Yamuna and into the Vindhyas, a region which is known to have been inhabited by the Vindhyan complex or the Kakoria-Koldihwa complex. In this manner, while extremely hypothetical at present and much qualified the quest to understand the manner in which the potters of the NBPW enriched the Iron content of their pastes and slips may also help understand the processes by which not only the NBPW was produced but also localize and understand these areas.

An initial aim of the project of the close study of the NBPW was to bring an understanding of the ware and its variants to a correlation with forms and possibly even with stratigraphy. While the curated materials of the Prof. G.R. Sharma Memorial Museum do preserve extremely good contexts, and are bagged by each spit, such a study was not possible within the time-frame of this dissertation and observations based on the collections which have been mentioned above shall be entered into below. In terms of the forms of the NBPW it is important to stress that two features of the ware itself condition any such exercise to a very considerable degree. The preponderance of the dish type, which is defined by extremely flat and thin bases and by increasingly upright sides and simple rims, is a trait which is obvious even without any quantified demonstration. Thus often close attention needs to be paid to a collection of NBPW sherds to arrive at a set which do not appear to be dishes. A second trait which makes it extremely difficult to identify other forms is that the fineness of the NBPW vessels and the fine quality of their firing mean that when they break, they shatter like glass and are often reduced to specimens which are approximately two or three times the size of a thumbnail on average and not larger. This unfortunately means that there are very few body sherds which can be used to establish many forms which thus have to be identified only from the rims.

An initial observation suggests that the basic and classic, well fired, thin and glossy black NBPW types is probably known from all forms documented. This 'base' variant of the ware is something which the potters had mastered and often extended to include a complex range of forms like many pedestelled forms, unpublished and yet numerous at the Prof. G.R. Sharma Memorial Museum. The Early Blotchy NBPW by contrast has hitherto only been indentified in a series of dish forms and additionally some which may be bowls of unknown profiles. Before entering into a discussion on the range of surface treatment variations which the potters achieved upon the basic glossy black classic

NBPW it is worthwhile to consider the problems they faced with this class itself and the lessons it can teach us for considering the NBPW.

As has been argued for the Blotchy NBPW, the NBPW technology lends itself to extremely different results in terms of colour which depend upon the nature of the slip applied and the firing conditions achieved. Whether desired or not, since the slipping technologies seemed to have basically remained the same and were perhaps only further elaborated, the classic NBPW and indeed all forms seems to have dealt with this problem. Curated at the Central antiquities collection is a large number of NBPW sherds from a single spit, which all bear a surface marked by greyish streaks which had considerably affected the finish of the vessel. Nonetheless the dishes and bowls which could be identified had clearly been in use, as was evidence by use-wear on the rims and the defect had not apparently affected their consumption[250]. Apart from shades of gray, the classic NBPW often seems to have produced a brown surface, which in its distribution along sherds can be understood as unexpected when it is patchy and deliberately fashioned when it is clearly controlled and defined over the entire surface. A trend which is particularly noticeable is the regularity with which it appears that efforts have been made to furnish the interior of dishes with a well finished and classic black surface, one which is often adorned with simple and complex stamped designs in the very centre. These dish types do not however bear such a close attention to the exterior of the sides of the dish. While the bases appear to have been usually fired well and predictably to black it is the sides which often bear conditions such as reds, browns and greys. In addition it must be stressed here that colours which have been described as reds, crimsons and browns are consistently found on sherds which are attributable to dish shapes and that these may, especially in the case of the crimson and the red shades distinct classes of dishes which were regularly and deliberately created by the potters. I argue this because they present a regular enough, albeit small distribution and are distinctive shades which represent a further skill in the manipulation of the NBPW slipping – firing technique. Additionally, it must be stressed that a preliminary attempt to try and examine whether there was a relationship between presumed external and internal surface colour treatments suggested that given a large enough sample perhaps all such combinations would be represented in at least one or a few sherds suggesting that it was a frequent occurrence, intended or unintended.

The dishes appear to clearly have been cherished and valued objects, something which is reflected in what appears to have been careful long-term use and long life-histories of these vessels. A surprising and frequent record of this is the manner in which the at the very lip of the vessels and across the rims, even the extremely resistant and tough slip of the NBPW can often be observed to chip away

[250] This is a locus which co-relates to a zone within the excavated areas of the Ghoshita-Arama monastery.

and the under slips and at times even the core of the vessels are often exposed. I argue here that this was a concern for the potters and an aesthetic precondition in their construction of these vessels. To address this they devised a manner of imparting a black band across the rim of vessels which may be expected to encounter such use, irrespective of the surface treatment which they were otherwise attempting. Amongst studied specimens, it was clear that the dish type was clearly one for such treatment and even bichrome NBPW and interior-classic black / exterior brown sherds were given such a band.

A type which appears to have been restricted to the classic glossy black NBPW is the grooved and small drinking bowl. This bowl perhaps represents one of the finest achievements in the ware, even though it is known from what is a relatively plain form of the NBPW. The bowl is distinguished by corrugations on its walls and is distinguished by a remarkable lightness of vessel weight. It is known to have been found in a small spectrum of related forms and small variations in size. To the best of my knowledge no specimen has ever been found which bears any trace of firing defects in this class of vessels and that indeed may be indicative of a special preparation of this class of drinking bowls. Before this discussion moves on to a consideration of the variants one further observation must be made which seems to impose serious constraints upon the manner in which we can visualize the processes of the production of the NBPW. While examining the sherds of the NBPW it appeared often that the fine suspensions and the series of slips of the NBPW may have presented an extremely viscous surface upon the leather hard vessel as the potter prepared to fire them. The appearance of finger-prints upon vessels themselves is not rare when we consider archaeological ceramics, but in the case of the NBPW they seem to have recorded aspects of the fragility of the fine surface treatments in the pre-firing stage. In a small sample of fingerprint bearing sherds, (of eight), it was noticeable that in each case the exact position of the fingerprint had led to a case of firing to completely different colours than the surrounding region. The impact and compression, which appear to have been behind the fingerprint and can be plausibly related to the movement of the vessel into a firing arrangement or similar activities on the part of the potter, seem to have clearly disturbed the slips. It appears then that the final slip and the light suspension may have had a considerable control over the eventual colouration achieved and that the amount of care thus required for the vessels in handling as well as in stacking for firing may have been a considerable challenge in itself.

Coming to the variants, it appears that the ‘Blue tinged’ and ‘Indigo’ specimens represent a form of variation upon the classic NBPW which is known mostly from dish types but may have also been applied upon others. It appears here that some form of variation in the final suspension has been

made which creates an effect which can perhaps be described more accurately here as an iridescent effect, much in the manner of an oil slick. Inclination of such sherds to direct sunlight at various angles produces a refractive effect which has often been described in terms of the combined effect against the black-blue surface as Indigo.

In contrast to this, the variants which are described as Silver, Golden and Bronze are markedly different and produce a surface which is entirely different from the classic black NBPW. Here it appears that more complex surface treatment variations may be at work. Such variations are known not only from dishes, where they produce brilliant surfaces on both the exterior and interior of the vessel but also from a range of forms, including what have been described as the flanged and restricted bowls. In these cases the interior surfaces are often a simple red akin to the fine red wares described above, or at times similar to the classic NBPW. This is important as it suggests that not all forms and all variations were possible within a technique of simple immersions in a suspension and that some of these required significantly more complex variations. The published results of the elemental chemistry have concentrated upon variations in carbon and Iron as they were focus of previous hypothesis and are amongst the most obvious constituents which the ancients can be expected to have manipulated. In the case of these variations something far more complex appears to have been at work as the carbon content is insignificant and unimportant to the variations and while the Iron content does vary, it does so across golden and silver zones on the same sherd by small percentages and not appreciably. The study by Gillies and Urch is known to have suggested

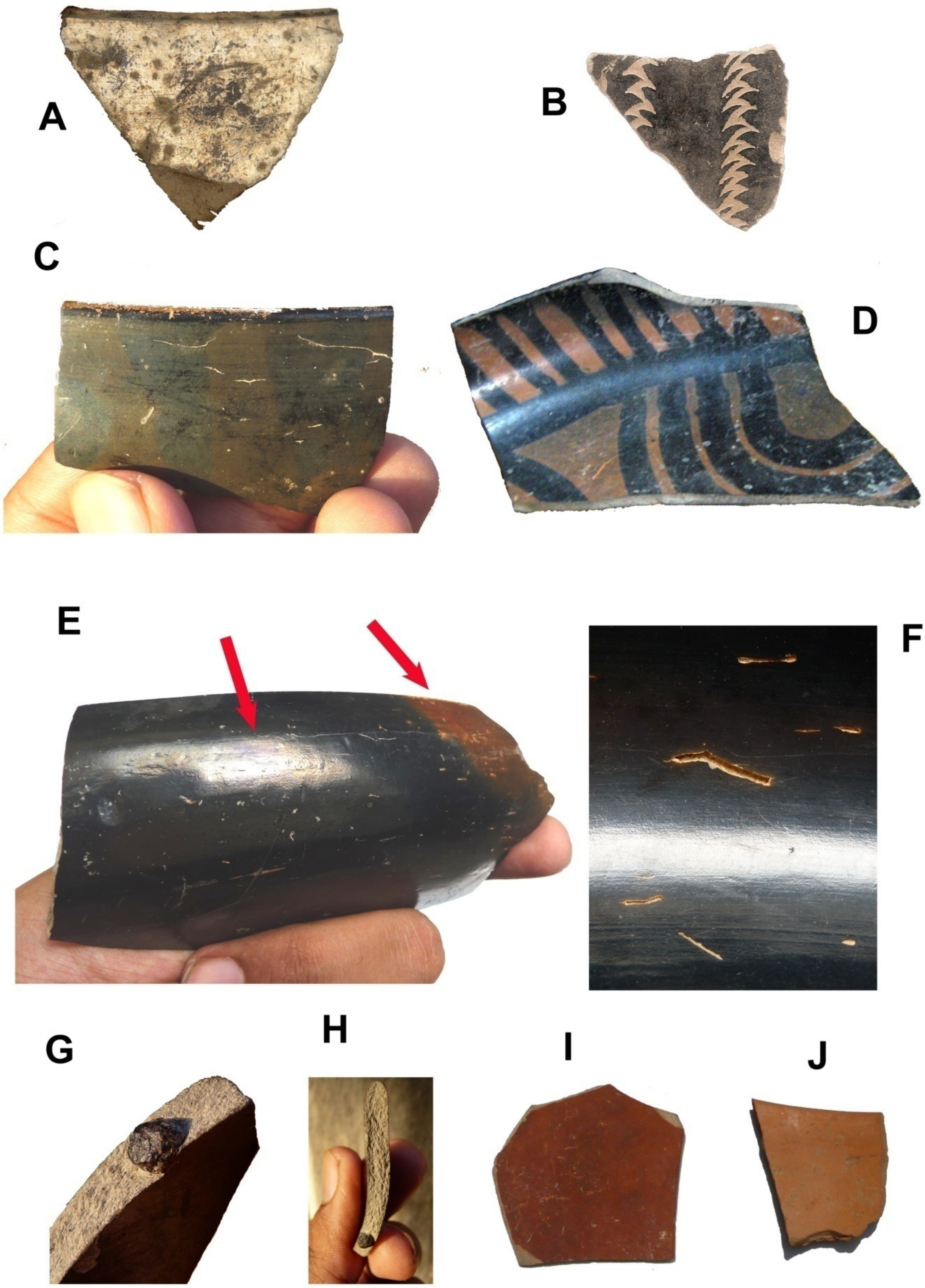


Figure 3-23 Chart displaying range of NBPW types and come prominent examples of inclusions. All examples are from Kausambi. Note type E, where a dish with the classic glossy black finish bears patches of the silver finish and of glossy brown firing effects on the same sherd

that in fact while the rest of the body and underslips suggested reduction the bronzed effect may in fact be due to oxidisation of a very similar slip in terms of compositions, barring a small percentage difference in Iron content.[251] Thus the manner in which the NBPW potters achieved these colour variations still remains a problem and a mystery. I argue here that perhaps further examinations of the ware which test the often put forth suggestion that perhaps some types were fired twice and those which combine detailed surface examinations with wider investigations of the elemental chemistry may reveal greater trends. What is essential here is that a major attempt to sample as many variations as possible be made so that it can be possible to arrive at a technical dataset which is as wide as the number of optically known variants.

A last consideration here must dwell upon the Bichrome NBPW and the painted NBPW types. The Bichrome NBPW represents what is perhaps one of the most complex technological achievements of the entire NBPW complex of wares and variants. No full documentation of the designs exist but it is clear that of all the NBPW variants this is a type which is far less frequently available and has a much smaller distribution. These trends suggest that it may not have been produced for very long and that it may not have been produced at many centres at all. No full list of sites where either of these types have been reported from was available and an effort in that direction has been made here. While this effort has been as exhaustive as possible, further instances may exist and the list should be expected to grow. Further there is some confusion over whether all instances of the report of the 'Painted NBPW' actually represent the use of the tan pigment or whether there are actually Bichrome sherds which have been labelled in that manner. As Table 9 suggests the Painted NBPW may have been a far more localized phenomena and the matter of the Bichrome NBPW represents a complex distribution that shall be addresses subsequently.

The Bichrome NBPW is most often reported from dish forms which are distinguished by the presence of two shades on the same surface presenting broad lines, which often slant across the side of the vessels and present curves and loops as they move across the curvature and onto the base. They represent a technique by which on the same surface of the NBPW the potters have managed to achieve designs quite similar and yet distinct from the known repertoire of paintings upon dish forms by variations within the NBPW template. Harding's sample included one such sherd, which again only established a variation in the Iron content across the zones which were the Gold and Silver types. Such examples are rare and it appears that bichrome NBPW which presents a red and black or pink and black design is more widely distributed amongst this small set. I argue here that this is perhaps an instance where upon the final fine suspension perhaps another layer of the

[251] Gillies, K.I.S. and D.S. Urch. Spectroscopic Studies of Iron and Carbon in Black Surfaced Ware, *Archaeometry,* 1983, 25: 29-44

same was painted on with very a broad brush, leading to a difference in the total amount of slip on different zones. This may be a future avenue along which this technique may be investigated and clarified as all current indicators suggest that all variations were achieved through subtle manipulations of the same slipping – firing regimes. Additionally, it must be admitted that the possibilities of double firing, in different and oxidising conditions too is possible but in my opinion unlikely.

Table 9 Table of known sites where the Bichrome NBPW and the Painted NBPW have been found

S.No	Site	Region	Reference
Bichrome NBPW			
1	Sravasti		
2	Kausambi		
3	Lahuradewa		
4	Pauni	Vidarbha	
5	Kakrahata	Jabalpur	
6	Rohini	Dist Kanpur	
7	Jhusi,		particularly from the mid-phase, pr 9
8	Amil Koni		
9	Khairadih		
10	Janso-ki-Marai	Chakai / Varanasi	
11	Sarai Mohana		
13	Niraon		BP Singh et al
14	Rajgir		
15	Senuwar	Rohtas / Kaimur	Senuwar report. Vol. 1. p.136
Painted NBPW			
1	Champa	painted in pink	
2	Rajghat	Painted in tan pigment	

Having described all these variations of the NBPW, it is important to stress that apart from the Blotchy NBPW and the Bichrome and the NBPW the rest seem to be distributed as a group. Where they are present almost all are in evidence and where they are not it is only the classic NBPW which is found. These are significant indicators of the range and manner in which different zones integrate into this new and definitive fine ware distribution zones and shall provide a key index for the subsequent discussion.

As a very last comment upon the NBPW and its technological complex, I argue here that the late NBPW is not as well defined as is often assumed and that while many field-workers and excavators have identified specific forms and traits these have remained unpublished and as such it is very difficult to address the issue beyond what is generally known. I argue here that the thickness of many sherds and the fact that many of these appear to present the NBPW finish on only one surface may in fact represent the extension of the technique to larger vessels, like globular pots and that these may not in fact mark a general degenerate condition of the ware. From the evidence at Kausambi, a initial indicator seems to suggest that perhaps more concrete and different criteria may be found in the cessation of the production of certain forms, and perhaps even in some of the variants described above. Only a major and concerted effort at quantifying these trends from an excavation can help in defining the terminal NBPW assemblages and the almost wholesale and complete transformation of the North Indian ceramic ecumene that occurs at that juncture.

The discussion above has attempted to illustrate the complexities of the NBPW in detail and has suggested technological grounds for a definition of the early, and mature phases of the complex. It has argued on this basis for a zone where it is possible to place its origins and subsequently trace its development. The question of its origins is far from resolved, although I believe sufficiently strong grounds now exist on both the count of the radiocarbon evidence and the distinctive Early Blotchy NBPW to consider the Vindhyan complex as a zone within which this ceramic was first fashioned and distributed. The evidence on how this ware then travels and disperses shall now be considered and its implications for the archaeological history of North India be addressed. The chronology of the NBPW period has recently been called into question again by a series of dates which come from the excavations at the 'disputed site' at Ayodhya. One of these dates goes back to 1250 BCE and on the basis of that K.N. Dikshit has suggested that the entire complex may go as far back as that date[252]. Others have expressed a more circumspect interpretation of the dates and have pointed out that the other two dates from the site for the period, while also being early are more comprehensible and date to 880 and 910 BCE. I argue here that the old chronology of 600 to 200/100 BCE is clearly in error. The earliest date of the NBPW complex is one which is difficult to establish and the dates from Ayodhya are thus extremely challenging, especially if the complex does not bear what has been defined here as the early NBPW. Until a full publication of that report and of the context of these dates is available it shall not be possible to consider the Ayodhya evidence in its full light. I argue here for a beginning of the NBPW in the period from 900-700 BCE and a tremendous and rapid

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[252] K.N. Dikshit, 'Ramayana, Mahabharata and archaeology, pp. 114 to 118', *Puratattva*, Vol 33, 2002-2003, pp. p. 114 to 118

expansion at some point during or just subsequent to that period. It must be stressed that there may well be considerable variations in the regional chronologies of the NBPW and that my estimation of the beginnings of the complex relate only to the early Phase and on current evidence cannot be generalized beyond the four sites of Jhusi, Kausambi , Raja Nala ka tila and Malhar. Even after this expansion may have proceeded at different times in different directions and the next section shall discuss that evidence.

Distributions of the NBPW: Understanding the complexities of the Integration Era

A major problem which thus attends the NBPW is a clear understanding of where the early forms of the ware are distributed. The current sample of 4 sites is small but on account of its distinctiveness may be taken as firm grounds for the definition of a broad zone, even though there are significant problems here in clearly defining a complex as well (See, 160 above for a discussion of these). I can only argue here that a clarification of the validity of the hypothesis presented here and an examination of the temporal limits of this period can only be established via excavation and a rigorous and comprehensive attempt to date the massive NBPW deposits. The three dates for the Early, Middle and late NBPW periods from Jhusi are the most consistent and reliable dates at present and the discussion shall proceed on their evidence.

The middle phase of the NBPW at Jhusi, which is represented by a considerable chunk of the overall 5.9 metre deposit for the entire period is known to have revealed considerable and widespread change in the NBPW and the wider material culture in the site layers number 38A-26. The sole date from this period is 550±90 BCE and forms a good handle upon which we can place the consideration of the massive transformations in the material culture of the period. I argue that the while the production of the classic black and glossy NBPW may have begun even within the early period the emergence of Bichrome, Painted and the whole range of variant NBPW's dates to this phase and the strongest grounds for this distinction come again for the sole site where these phases have been clearly delineated and published: Jhusi.[253] It appears parsimonious to argue that the massive and so often commented upon distribution of NBPW is an artefact of this period. It is important to note that arguments have been made quite to the contrary, especially regarding the NBPW from sites as far away as Alangankulam and Korkai.[254] I argue here that unless we have a clear and full publication of what has been defined as the early NBPW it is not possible to proceed with a clear delineation of the cultural transformations involved.

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[253] V.D. Misra et al, 'Further excavations at Jhusi: 1998-99', *Pragdhara*, Vol. 10

[254] D. Chakrabarti, *The Battle for Ancient India: An Essay in the Sociopolitics of Indian Archaeology*, (New Delhi, Aryan Publications, 2008) Appendix II Section on the Debate over the date of the NBPW

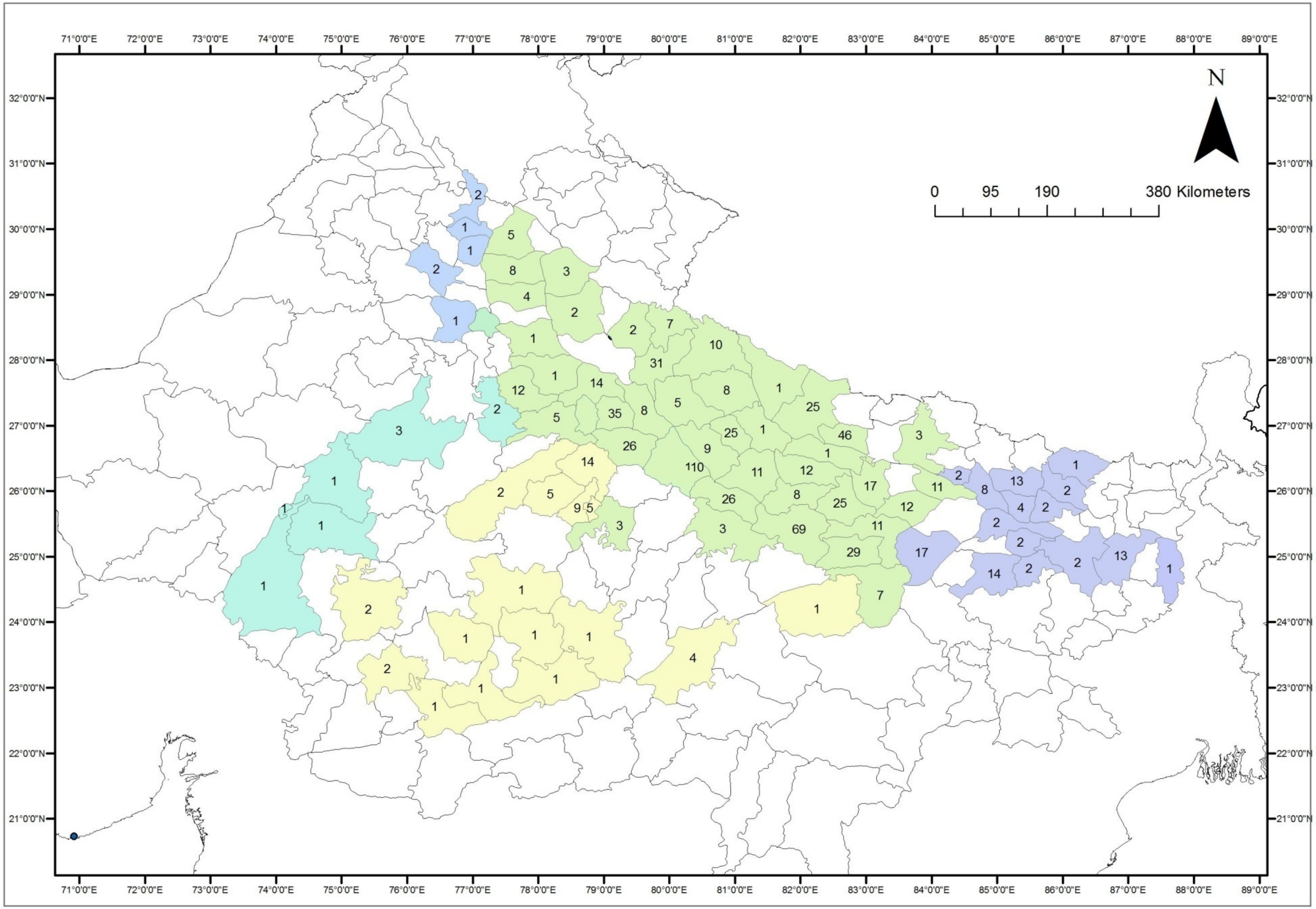


Figure 3-24 A polygon plot showing the known distribution of NBPW sites by district. Note the extremely small number of sites as we move away from the Kanpur-Allahabad zone of concentration in every direction.

Figure 3-24 presents a map for the NBPW distributions across all of North India by district and I shall begin this consideration of its implications by confessing my own surprise at the trends it presented. While indications had come to my mind even in the preparation of the gazetteers and datasets which went into the production of this Map the trends here challenge one of the most basic notions of Indian archaeology. This is that the NBPW unequivocally, for most parts of India serves as the best indicator of the coming of the true Early Historic period and is the marker of Urbanisation and of the state as well as empire through its supposed connections with the Mauryas. As this section shall argue the formulation of such a hypothesis was a clear consequence of early discoveries and the methods by which Indian archaeology has progressed. The discovery of the NBPW at sites as extensive from Taxila to Rajgir were formative to the manner in which the chronology of the ware was considered and its associations with light at the end of the Dark Age. I argue here that Wheeler's exaltation of this ware as such a marker, while correct and foundational is something which has since been canonized and no further inquiry into the matter of the ceramic cultures of the period for the North been considered.

There has been a problem here not only of the synthesis of Indian archaeological data but also one of communication and interest by Historians of Ancient India who have taken the matter as granted. The standard ideas have been that the NBPW represents the whole gamut of associations bundled into the idea of the 'second urbanisation' and that wherever this culture has been thought to exist the NBPW has existed and been representative as well. This is far from being the case and part of the issue again has to do with how cultural spheres and domains have been constructed and understood. Again after Wheeler there has been a general idea that the North constitutes a unit, of the arena of the Aryans and there has been a binary constituted in the idea of a black and red ware using Megalithic South. While much of the progress of Indian archaeology over the last 50 years has been in detailing the cultural regions and formations across the subcontinent beyond the pale of this broad generalization I argue here that a consideration of the regional material cultures of the Early Historic has not been attempted. Much of this also has to do with the ideas about the role of archaeology in the historical period and a well known ladder of sources which informs their considerations.[255] I argue here that the NBPW represents no doubt a complex and massive phenomenon of integration and is associated with extremely complex and truly transformative social processes but these occur alongside the continued and equally important zones of local material cultures and specificities which have been overlooked. A consideration of these is not only important but also seminal to the manner in which we understand the processes at work in the

[255] J. Moreland, *Archaeology and Text* (London : Duckworth 2001)

making of this new world, rather than considering it as a bundled and homogenised label which is simply replicated everywhere.

A few observations on the dataset itself are necessary and apposite as it is crucial to the degree to which interpretations can be made for the following discussion. As with previous time periods, the database is severely qualified by the intensity and manner of surveys in various regions. The most densely represented regions in Figure 3-24 are those which have witnessed concerted and repeated survey efforts which were aimed at the documentation of sites of this period. Thus the districts of Kanpur (110), Allahabad (69) and Sultanpur (12) represent areas which may actually be true approximations of the density of sites in that region. In other areas the figure may not be so representative even if they weakly demonstrate the trends at work. These limitations are unfortunately most debilitating when we attempt to formulate hypothesis on social change and trajectories across the region but the existence of at least these 3 regions in addition to D.P. Tewari's extensive surveys across the central Ganga plains allow for a discussion and a comparison across some zones, even if hypothesis across larger regions remain qualified. An additional feature which should be considered is the visibility of NBPW in terms of surveys. The ware is one of the few which is truly distinctive and thus forms a type which is easily recognized even in the most water-logged and eroded of sites. Yet the massive growth of many sites inhabited during this period in the course of subsequent occupations means that the levels belonging to this period may quite clearly be thoroughly encapsulated and cultural materials from them not as visible in surface assemblages. Additionally a trend which shall be considered below is the fact that the NBPW travels in differential numbers, quite like the PGW as described above and thus the manner of sampling which all surveys and even excavations present may not actually encounter it.

Despite the caveats one trend which emerges without any doubt is that the NBPW represents a phase of cultural integration and the forging of clearly visible networks radiating out from the Ganga Basin across much larger parts of South Asia than ever before.[256] If the earlier period has been marked by considered cultural diversity and clear groups in terms of the preferred fine wares, the NBPW serves as a marker of the emergence of an interlinked world where the named ceramic emerges as a symbol of shared and transformed cultures. No fineware has ever been distributed across so many different regions of North India and this scale is one of the reasons why the monolithization of the NBPW argued against above indeed came into being in the first place. Before the discussion may proceed towards a delineation and discussion of the integrative processes a summary of the gross trends shall be presented.

[256] I stress the geographic location here, particularly so as not to enter into false and not entirely meaningful comparisons with the Mature Harappan integration era on an aspect of scale and other such indices.

Table 10 NBPW distributions by state

State	Total Number of sites	Other Early historic Cultures	Counts of sites of those cultures
Uttar Pradesh	705	Marked concentration in the Eastern and central districts, the North-Western zone in particular seems to share a trajectory similar to that of Haryana and Punjab	
Punjab	0	Known that the PGW associated Gray Wares continue and are central to the period whereas the NBPW is known only from a few sites. Intense problems in identifying the later plain GW and thus no specific data.	PGW sites: 226 Sunga – Kushan: 249 These bracketing figures are perhaps the best trends available.
Haryana	12+	Known that the PGW associated Gray Wares continue and are central to the period whereas the NBPW is known only from a few sites. Intense problems in identifying the later plain GW and thus no specific data.	PGW sites: 207 Sunga – Kushan : 176 These bracketing figures are perhaps the best trends available.
Rajasthan	15	Very little information exists on the Early historic cultures and settlement patterns. Significant that NBPW is known from the largest site of Nagari	
Madhya Pradesh	47	Weak integration into the NBPW zone, distinctive early Historic Black and red Ware known to define assemblages	No known counts of this complex, trends from previous and later periods suggest NBPW figure is not representative of the density of sites in the period in any way at all.
Bihar	86	Strong integration into the NBPW zone	
Jharkhand	2	Independent cultural developments in the Chalcolithic communities?	6 to 10 sites from the previous period
Chhattisgarh	0?	Successors of Megalithic Chalcolithic communities	3 large complexes of habitation and burial known form previous period

As Table 10 demonstrates there is a marked concentration of sites of the NBPW in the state of Uttar Pradesh and Bihar. In regions outside of this however there is an equally definite trend which documents a much lower and more sporadic existence of this ware. The presence of the ware in Madhya Pradesh is highly suggestive but is sadly not contextualized at all amidst the much wider settlement patterns which must have existed in this period. The regions however where the ware is found bespeak of the emergence and activity of networks which are not evidenced as clearly in the preceding period. The states of Rajasthan, Jharkhand and Chhattisgarh similarly present regions where very little has been established about the first millennium BCE and the low presence or complete absence of the ware is hard to frame. The case of Rajasthan is somewhat different from the other two and the regions of Rajasthan represented on Figure 3-24 are the best documented areas where the emergence of Early historic settlement patterns are known.

In attempting to comprehend the transitions which are known in various parts of this cultural landscape this discussion shall attempt to begin with those areas which appear to have been most strongly integrated into this new cultural dispensation. It is apparent from detailed excavations at many sites that this is not a seamless process nor is it one which involves dramatic, sudden or wholesale changes. Almost every complex which is known from the previous period is known to have documented that there are a few levels where the NBPW is documented in layers very similar to the cultural complex known previously and that only subsequently do other traits become manifest. At present these traits are only being analyzed through a ceramic lens and these include the prominent and diagnostic types which are said to be definitive elements of the NBPW assemblage. These include prominently the following distinctive vessels: the carinated Handi, the Ahichattra Xa which is a medium sized pyriform or pear shaped vase and the small incurved bowl. The third type is somewhat less used and less clearly defined especially as it is similar to later types and the discussion here as in many other places relates to principally the first two forms described. The reportage of NBPW assemblages has most often reported around the presence of absence of these types and their early recognition and delineation as distinctive in 1945 from the Ahichattra report has no doubt gone a long way. Unfortunately, this dataset too is not exhaustive, as full reports have not been published and there is no comprehensive study which would compare the red wares of the mid and late first millennium BCE across the Ganga basin in terms of their similarities and differences. Nonetheless, these form very significant additional markers of these networks and the interaction sphere and further contemplation about the two is called for.

It has been noted often at sites where a detailed examination of the often extremely large NBPW deposits that these types do not appear to have been present from the beginning of the NBPW period. Rather they are noted to have come into circulation at a time which is most often defined as the middle of the NBPW phase. I argue that a region consideration of this betrays further traits about the chronological difference in the spread of the NBPW. Sites like Jhusi, Sringaverapura and even Kausambi are noted for the fact that the miniature bowl and the Ahichattra Xa are 'conspicuous by absence'[257] in the early phase. At Atranjikhera for example and even more distinctive association of the varying morphology and the appearance of these various forms has been documented across the four phases of the NBPW noting that the carinated Handi in fact may not even be present till the 3rd of the four phases and the Ahichattra Xa also appearing only in the second. At Senuwar where the excavator argues that only the early phase of the NBPW is present and that the site is subsequently deserted only to be reoccupied in Kusana times it is notable that none of these types are present. The full report from Chirand which has only recently been published suggests that only the carinated Handi was found and the distinctive Ahichhatra Xa is not described in the report.

On the basis of these trends I argue here that while these associated ware are clearly markers of a new assemblage which comes together in association with the NBPW it may be the case that they were not associated in any region at a time previously and thus are not one unit. In fact for the types other than the bowl distinct possibilities do seem to be plausible. I argue, tentatively here that on the basis of the still ill-described assemblages of the Koldihwa-Kakoria complex it is possible that the extremely distinctive carinated and rimless handi form was part of the assemblage here and the later form emerged from these forms. The reasons for this are twofold, and involve the broad trajectory of Handi vessel shapes which are known from the complex and more centrally the presence of fragments of the distinctive rim portion of such a vessel in a distinctive cord impressed and lightly slipped ware which are curated at the Prof. G.R. Sharma Memorial Museum and are provided with a locus known to have belonged to period I at the site. In contrast I argue that the Ahichattra Xa type may be a product of the western red ware assemblages and weak suggestions to this effect come forth from the Sonkh report, one of the most detailed available for the area where a tradition of fashioning medium sized pyriform vases is known from the an early period and appear to be broadly comparable and constitute a series within which the Ahichattra Xa could be seriated with ease. The case at Sonkh and indeed in the case of the Ahichattra Xa is weaker but is strengthened by the fact that if we search for a series of small to medium Jar types it does not appear that such pyriform shapes, especially with rims that do not project away from the body, were

[257] B.B. Lal's report for the season at Sringaverapura, *IAR 78-79*, p.57-59

ever produced in the eastern assemblages of the pre-NBPW period. Further strength is adduced to this argument by a series of unexpected occurrences of the ware in assemblages in Punjab and Haryana where the NBPW was not known. Further it appears that the type is even found in the early sites in the Kashmir region, where in fact the NBPW has never been reported from.[258]

Thus what is the NBPW period and its typical ceramic representation? This is something which appears to vary by region and by phase. This is an extremely important argument as often the case has been to take any of these markers as signs of the fact that the entire temporal range and sequence can be understood to have existed at the site, another manifestation of the pervasive limits of culture-historical interpretations. This argument itself can be further broken down if we consider the distribution of NBPW across zones by forms and ware types present. This again is a daunting task and one which is deeply qualified by the standards and exhaustiveness of reportage. It appears that the range and diversity of forms beyond dishes and simple bowls is best known from sites within a region defined by Kausambi on the east to the areas of Rajghat and Champa on the west. In the western complexes, even from large sites like Ahichattra again, only dish and bowl forms have been reported, although it must be noted that the more extensive excavations at the part of the site which yielded early levels have never seen the light of day. Even from distant Taxila, it appears that only bowls and dishes were available and additionally one bowl form should be noted as being completely different from any known in the Ganga basin. The situation in Madhya Pradesh is far from clear and suffers from a lack of full publication of many seminal excavations. Even at a complex like Maheshwar-Navdatoli it appears that a fair number of the variations of the NBPW were found, but these were all small and only dishes and simple bowls are presumed to have been present.

The site of Prakash, on the Tapti and further south in Maharashtra may however be briefly cited as it presents an interesting case in the context of the present discussion. At B.K. Thapar's rapid but reasonably extensive excavations in 1955 it is clear that he NBPW was present and Thapar records that 20 sherds, mostly small were recovered. Nonetheless, from these he was able to present a variety of 6 forms, including some deep bowl forms, not known anywhere else outside the Ganga basin. Further Thapar notes but does not quantify that his cutting unearthed a few sherds of all three of the distinctive red ware associated forms and that the small incurved bowl, the carinated handi and the Ahichattra Xa were all known from Prakash. Sadly the emphasis on section and section alone again has meant that there is no record of whether these sherds were found associated or in various parts of the site as these would each lend themselves to significantly different

[258] *IAR 1981-82*, p.16-17

interpretations. For comparison's sake the 20 odd years of excavation at Taxila are known to have yielded a very similar number of sherds in total. Further, it appears that significant variations can occur over very congealed spaces as well, and in fact these may represent significant cultural phenomena which we do not understand very well at present. In the region around Chandigarh for example the sites of Ropar and Sanghol are massive and complex sites, each displaying distinct and important trajectories of evolution into the early Historic. Further both sites have been extensively excavated and have witnessed some form of the documentation of the cultural and ceramic sequences. At Sanghol, a somewhat complex situation is known where contemporaneous to the PGW a Black slipped war and Gray ware assemblage is said to form which carries the period through to the early Historic and of the many excavators of the site, only mention the NBPW as occurring in only one season and have furnished no further details. At Ropar in contrast the excavations have been known to have yielded from what was no doubt a large excavated area, almost 500 sherds and the existence of the ware itself is not in doubt at the site.[259] Further Ropar is also one of the sites where a dish type is known to have been riveted together with a copper wire so that its use could continue after even its breakage, something which has become symbolic of the value and associations of the NBPW.[260]

A more complex arises from the evidence at Senuwar, where the close and careful attention of B.P. Singh to forms and wares presents a clear picture of the continuation and in fact clear development of the Black slipped ware into further and more elaborate forms. B.P. Singh notes that one of these new forms is the flanged bowl, a type which becomes extremely common and produced regularly in silver and bronze variants at sites like Kausambi in the NBPW. Thus it is appears that even the constitution of the NBPW form repertoire itself may have ad many sources and incorporated other than the common dishes and bowls other traditions from those around them.

Senuwar has also presented the only known study of a complicated issue, of whether the NBPW was being produced locally at small and modest sites, which Senuwar is in this period or whether it is produced at a few and considered central locations and transported elsewhere. Ravindra Kumar's petrographic study of sherds and clay samples from Imlidih Khurd and from Senuwar is suggests that on account of the grain sizes and some aplastic inclusions like sandstone particles the NBPW from

[259] K. C. Nauriyal, 'The Northern Black Polished and Other Associated Wares from Roper', *Puratattva*, Volume 21 (1990-91),

[260] A word of clarification may be necessary about the Ropar riveted NBPW which at times has also been taken as an index of the scarcity of the ware in the western areas. While no such examples have been recovered in the central region of the Ganga basin, the trend seems be as visible if not more so in sites at Bihar, where the ware was by no means distributed in small quantities. The riveting thus is a phenomenon which is complex and may represent trends across social boundaries rather than across geographic-cultural ones.

both sites was produced at the site itself. I argue here that while Kumar's study is a welcome addition to the literature on the NBPW and has done much to establish the petrographic nature of the sherds there may occasion to heed some caution. A closer look at Kumar's own categorisation of the NBPW petrographies puts the sherds in classes which are regularly finer than those which demonstrate traits which are closer to his clay samples. Further I argue given the nature of very broadly similar clay samples in the Vindhyas petrographic study alone may not be sufficient grounds on which it is possible to argue for the zones of production and that more advanced studies which investigate special and trace chemical compositions and Neutron activation analysis may actually be more appropriate for issues of clay sourcing and production context. What Kumar's study has demonstrated far more successfully in my opinion is that there is a considerable variation between the petrographic characterization of the Imlidih Khurd NBPW samples and the Senuwar ones and his documentation of this may prove to be much more fertile grounds for further inquiry.[261]

I have argued above, at length against a monolithic view of the NBPW complex and an understanding of its variations, its varying components and associated types and indeed the variability of all of these constituents across time and space. Understood in such a manner it is clear that the NBPW is one record in the forging and the creation of a larger interaction sphere. It is important to see this as one record amongst many such transformations and decouple these many observed effects of Urbanisation and what has even been often termed civilization from this single ware type. As a step towards an appreciation of these other markers I argue here that it is important and necessary to consider the set of cultures which seem to integrate weakly and strongly into the networks of the NBPW and posit what other linkages and networks seem to exist and explore issues of change and continuity in these contexts.

As Table 11 demonstrates there is tremendous variation and coexistence alongside the NBPW in all zones and this is feature that extends across zones which are strongly and weakly implicated in the distribution of the NBPW itself. There is considerable change in what I have been referring to as the Vindhyan complex and its various regions as the NBPW comes to replace and be extensively distributed in this zone across large and small sites. Outside of this zone and to its North, across the Sarayu, where too the NBPW comes to be distributed the chronology and the extent of these distributions is clearly more variable.

[261] Ravinder Kumar, 'A Petrographic study of Ancient Ceramics: A case study from Imlidih and Senuwar' in Pant, P.C. & Vidula Jayaswal, *Ancient Ceramics : Historical Enquiries and Scientific Approach*. (Delhi, Agam Kala Prakashan, 1997). p.197-219

Table 11 A Tabulation of cultural regions in the Ganga Basin, Madhya Pradesh and Rajasthan considering the evidence for the complex over a period from 800 through 200 BCE and their integration in the NBPW networks.

Region	**Preceding culture**	**Nature of interaction with the NBPW**	**Trends of development visible in the complex**
Haryana, Punjab, North-Western U.P	PGW / BSW	Strong to weaker as the distance from the central Ganga plains increases in a Easterly direction	Perhaps the least understood of all, as no clear survey markers have been recognized and used
North Rajasthan	PGW/BSW	Emergence of many clear centres in this period although overall reported site density is low. May generally be related to the emergence of the Mathura complex	Present documentation does not suggest any demographic growth from the preceding period and instead suggests a demographic break of sorts with many PGW sites being reported as not continuing into later periods.
Southern Rajasthan	--- Unknown--- but presumed links and distributions of the Noh B&RW complex have been suggested	Unclear as there is little understanding of the settlement pattern in the region	It would appear that a regional society is in the process of growing and emerging after a period of marked demographic reversals
Western regions in MP centred upon Ujjain and the lower Narmada valley	B&RW, RW and the Vesiculated wares / Late Jorwe	No clarity about the nature of integration into the NBPW networks, though it seems to have been strong for the major and large site of Ujjain.	Situation is again compromised by a lack of survey data for the region. But trends suggest a considerable distribution of sites in the Ujjain hinterland must exist.
Central MP, Raisen - Vidisa	Chalcolithic traditions give way to local complex marked by distinctive B&RW	No quantification of trends, but it is known that NBPW is regularly present in small amounts often in association with early Buddhist establishments	Massive development of Buddhist sites, many of which appear to have been amongst the earliest. There has been very little surveys aimed at documentation of related settlement patterns, but see Shaw, for a significant statement about change
Bilaspur-Malhar in the North Chhattisgarh Area	Local Chalcolithic is presumed but has not been documented	No NBPW in a major Early Historic centre where large settlement and other indices like Punch marked coins and early sculptural art in stone are known from.	An unknown complex of a B&RW of dishes and bowls alongside an undescribed RW exist in isolation at the site and there are no details about its hinterland.

Jabalpur-Tripuri	Local Chalcolithic, which is a variant of the Jorwe types	Here it appears that a regular network of sites is documented around Tripuri at least 2 to 3 of which are known to have yielded the NBPW during surveys	Certain emergence of another regional centre in Madhya Pradesh
Vindhya-Ganga Chalcolithic	RW/B&RW/ GW?	Massive density of NBPW sites, second only to the Kanpur region across all zones and this can be demonstrated as being a partial representation.	The doab and Gangapar complexes, as well as the extensions of the complex into the Kanpur and Lucknow region all become central regions in the distribution of the NBPW. Further it appears that some form of divergence occurs between the Vindhyan and the Ganga zone in this period.
Kotia	Thick GW/RW of a distinct megalithic culture	Of the 60 to 70 known Kotia period sites there are about 10 now where the NBPW has been documented, including most recently during excavations at Tokwa.	This is a unique and distinctive culture which emerges out of the Vindhyan complex, in its core zone at a time parallel to the emergence of the NBPW in other close by sectors of the central Ganga Basin. The Kotia complex is perhaps one of the very few examples of a cultural tradition emerging as clearly and distinctively in such close proximity to the NBPW zone of maximum distribution.
Raja Nala	B&RW	Alongside Malhar, it appears that all sites which continue into these periods exhibit strong links to the NBPW complex which are known to go back to the period of the Early Blotchy NBPW	In the Karamnasa valley it is not clear whether there is overall growth in terms of a growth in the number of sites, but it is clear that sites like Takiaper and Prahladpur both grow into major centres during this period, suggesting that the hinterland may have undergone transformations related to these changes.
Narhan complex and the Sarayupar	WpB&RW,	Somewhat divergent trajectories at different sites. It appears that the site of Lahuradewa integrates in a strong manner with the earlier phases and a large quantity of Bichrome NBPW is known from the site. The site of Narhan and others in the region are known to have yielded barely a few NBPW sherds in an assemblages of BSW, RW, GW and a few Jar from which are extensively covered with cord-impressed 'decorations'	Overall while there are known and extensive regional settlement patterns for the preceding periods there are no major markers of major demographic growth during the NBPW period. If anything at sites like Lahuradewa a stasis and even possible contraction in overall site are indicated. Further, while Sravasti is known to grow into a large site, there are no clear estimates on whether this acceleration is largely based in the NBPW period or subsequently, a trend demonstrable for sites like Kopia. Nonetheless, sites like Sohgaura suggest that there may have been centre which grew considerably during this period but have not met with apposite documentation. Beyond these large sites however it is known that a range of small sites have been documented across the area, which still

			however seem to be in small densities by district for a region which is now quite well surveyed. Further B.R. Mani's excavations at the site of Bhita here led him to suggest three phases in the NBPW in which the earliest notably had no NBPW but only the regional GW and RW and the NBPW arrives with extensive colour variations in the middle phase.
Senuwar Chalcolithic	A culture marked by the retreat and passing of the fine B&RW, instead definite trends in the BSW towards dishes and bowls alongside a RW and GW	Sole excavated site has been argued to demonstrate only the existence of the early phase of the NBPW in the region. B.P. Singh's survey is one of the few which attempted to distinguish between the early and late phases of the NBPW and suggests that by the late phase a fair complex of 10 to 11 small to modest sized sites are known to have yielded the ware.	B.P. Singh's survey appears to document some sort of disturbance in settlement patterns at the end of the Chalcolithic, in the wake of which a number of known sites do not make the passage into the NBPW and others are abandoned in its early phase. However other new sites are documented as arising and these trends are argued to grow till the end of the period.
Central and North Bihar	A Chalcolithic culture marked by a distinctive fine B&RW similar to that in the Senuwar complex	Strong patterns of Integration known from all the large sites of the region, both to the North and South of the Ganga. These include Pataliputra, Kumrahar, Vaisali and Sonpur as well as sites of the next tier like Katragarh.	The clear emergence of truly massive sites and a close clustering of smaller sites is left uncontextualized in what is a major gap in our knowledge. For all regions except Sitamarhi, where recent surveys have been conducted, there are very few areas where there have been systematic surveys to document what appears to have a complex landscape marked by a number of sites in the higher rungs of the settlement hierarchy. Undoubtedly, the entire region seems to undergo tremendous and rapid growth through the NBPW period, but its complexities and regional variations are not understood. Sitamarhi for example grows to a region of circa 31 sites in the NBPW period without any being larger than 10 Hectares a trend which seems to contrast with what we presume about many other regions in Bihar.

In the case of Bihar I argue that even despite our acute lack of information about small sites and the general tends of settlement hierarchies there is clear evidence for considerable regional differences. As summarized below the districts of Rohtas and Sitamarhi, in both of which no large and dominating site exists and where some survey data has been recovered it appears that while one region experiences desertions and reorganisations, the other presents a case of a more continuous growth towards and a large number of sites are known.

One of the strongest arguments perhaps for the fact that the notion of a single cultural process which can be described and referred to summarily as the NBPW period and its use as a shorthand for the processes of Urbanisation and development comes from a zone which is set cheek by jowl to the areas of its densest concentration and plausible origin. It is well documented by excavations that whilst the trajectories of the Vindhyan Chalcolithic at sites like Jhusi and Kausambi are driven towards the formation and early use of the NBPW a very different transformation is occurring at the sites in the Vindhyan river valleys themselves. At least 20 odd sites are known, where upon an older occupation of the Kakoria-Koldihwa complex comes about a different and distinctive culture which is marked by a truly unique ceramic assemblage of thick sturdy Gray and Red wares which are known from distinctive Handi and bowl types. This culture known as the Kotia culture after its type-site is known to have had an overlapping yet different distribution to the preceding culture and subtle changes in the styles of megalithic memorials have also been described.[262] It has also become clear that the chronologies of the Kotia culture are parallel and contemporaneous to the emergence of the NBPW, which is occasionally found at the habitation sites of this culture. The Kotia culture thus represents that even in the time of the NBPW and in an era where its networks are extending far and wide there are significant possibilities in the cultural landscape which while elided away in the past are extremely significant for the manner in which we contemplate and understand the emergence and fashioning of new identities in the period.

Having demonstrated the complexity of the issues at hand in understanding the nature of the NBPW period and its local trajectories the discussion shall now turn to a consideration of what has been the central issue at the heart of the debate over the NBPW period: that of Urbanisation, it material culture and the manner in which it has been understood in the context of the Ganga basin and Indian archaeology.

[262] The lack of full publication of this complex has often hampered its research and it appears that the Kotia wares may actually have also have a small distribution outside of its primary distribution zone and some sherds from the NBPW associated levels at Kausambi have tentatively been identified as Handi types of the Kotia ware in the course of my study.

XIV. The forms of Urbanism: Bridging the gap between the 20th century CE and the 6th century BCE

A juncture which is marked in the archaeology of the Ganga basin is a period which despite all the revisions argued for above on many counts occurs at a period which has been identified as the mid NBPW phase and seems to begin around the beginning of the 6th century BCE. The transitions are multiple and are marked by many developments in the material culture. These are changes which are marked in the phenomenal and rapid expansion of certain sites, the structural transformation of the spaces both domestic and public at these sites and a massive burgeoning of various classes of artefacts which are constitutive of a new arena within which identities, individual, local and regional are all negotiated.

The transformations in the structural sphere are most profound and seem to transform large areas of sites from a dispensation of wattle and daub structure to a world of baked brick, multiple roomed complexes, often designed with clear courtyards, galleries of rooms and tiled roofs. Some sites grow from being within the 5 to 15 Hectare zone to being much larger and exceed 100 Hectares by the end of the NBPW phase. In the Ganga basin it is clear that many sites are provided with extensive and truly massive mud ramparts and it is suggested that some form of brick structures come to be associated with these major markers in the settled landscape. Associated with these clear signs of tremendous demographic and technological growth are myriad and manifold markers of the coming of diversity and an almost ubiquitous profuseness in craft traditions. A complex and interrelated system of monetary measures in a series of coinage traditions comes together and from its inception forms a medium for the inscription and communication of a variety of dialogues in an increasingly elaborate vocabulary of symbols. In almost every sense a new dispensation of societies in every sense is seen as manifest in the archaeological record and these have been seen as symptomatic of the 'second urbanisation'.

It is important to contextualize these oft-repeated traits of the historic urbanisation by placing it back into the landscape which the previous section has demonstrated to have been so variegated and regionalised. Till recently almost all our knowledge of this period of the coming of Urbanisation was based upon a number of excavations, all of which were however had been conducted at some of the largest sites in their regions. In the last decade somewhat inadvertently, in the course of excavations designed at investigated older periods, sites like Malhar, Senuwar and Lahuradewa have

suggested certain trends about the manner in which these transformations in material culture impacted upon smaller sites. Their evidence has clearly posited histories of integration into these networks, the unequal reach of many of the networks of artefacts and their consumption and most importantly also of desertion and retreat. As forces in the landscape thus, the by and large the phenomenon of Urbanisation has been judged in its own mirror.

I argue here that the construction of the idea of the ancient Indian city has a complex and layered intellectual history. The fragments which have gone into the making of this are as varied as ranging from the descriptions of ancient Indian cities in the textual traditions to the theoretical debates over the definition and comprehension of a city in the literature of Western archaeology. The city and indeed the entire archaeology of the early historic period have been evaluated in the shadow of these preoccupations and I argue here have considerably obscured what are the real trends in the changing settlement patterns and the emergence of new societies in the Ganga plain. The critical components of these discourses may be traced back to two broad sources which have had such a pervasive affect on the archaeology of the Ganga plains that no envisioning of the question of the Ganga plains has been possible but through these lenses.

The first of these relate to the foundational and seminal work of Gordon Childe. As much of this has been dealt with in Chapter 2 I shall argue here that Childe's legacy has been a problematic issue across every regional traditional of archaeology but the Indian experience is marked off by a consistent lack of efforts to theoretically revisit his bag of traits and their implications and indeed to investigate whether they are actually useful and relevant to the archaeological record. In recent years the theoretical critiques of Childe have unpackaged much of the edifice of the Urban revolution and have stressed the relation of the landscape to the city, of the need to unpack association with ethnocentric conceptions of monumentality and 'planning'. The latter in particular is extremely important and relates to what is the central element around which notions and ideas of the Indian city have been constructed. It is remarkable how pervasive the 'idea of planning' and its imagined form of rectilinear spaces with clearly demarcated zones have been in the consideration of urbanism. It is only recently that concerns have been raised about how these notions are rooted in twentieth century and particularly western notions of a city and the modernist anxiety to control and modify urban spaces. A case which is acknowledged in Indian Archaeology are the infamous 'grid-Iron' planned layouts of the Harappan cities and the qualified account which has been produced since the first pronouncement of the same. In the case of the early Historic, the sources of this are dual and upon these notions a second layer of discourse has been constructed from textual idealized descriptions and prescriptions about the city. It is ironical in some ways that while the

grand descriptions of the city from texts like the Ramayana have generally been described as having been a bit of a disappointment in that they had raised expectation beyond those which were met by an evaluation of the material culture, it is the idealized description of a city form the Arthashastra which has been taken as the definitive statement on this period of 'second Urbanisation'.

It is worth pausing and considering the description itself and the manner in which it has been interpreted. The description have usually described an idealized city, divided into quarters within a fortified centre and this idealized map goes on to construct specific associations for different sectors of these spaces, assigning a hierarchy of place to economic and social groups in its scheme of a brahmanical vision of statecraft. The key figure at the centre of the city, and indeed of the entire discourse of the text, and to whom in fact the entire text is addresses if the Svami, the master and the King whose precincts and palace are placed at the very centre of this city. I argue here that as a representation of the centrality and importance of the city the passage from the Arthashastra is no doubt an extremely evocative and deeply loaded construction. The positivism which has often informed the study of ancient Indian textual traditions and the manner in which they can be used for a study of ancient Indian societies has meant that what is clearly here constructed in the effort to present a urban form and society as a reflection of the rulers will and authority have instead of being read as strategies of legitimization and elements in the construction of the royal authority have been taken as fact. It is not rare that monographs which deal with the archaeology of the Ganga plains and the question of Urbanisation to even produce reconstructive 'blueprints' of the city after these descriptions and then attempt to compare these against known types. On the face of it, everything seems to fit perfectly and the manner in which text and archaeology relate has been evaluated as a good match and comparisons are drawn to the obvious and massive fortifications known from many sites and it is argued that thus the second urbanisation is a well understood phenomena, of cities, states and kingdoms.

I argue here that this an elaborate device and one which intellectual trajectories of the past century were extremely comfortable with. Norman Yoffee's recent and impassioned arguments against such mythifications of the understanding of the processes about the emergence of the state and cities have served to clarify and bring into the light of day the purposes and the intellectual premises of such positions. Two of Yoffee's arguments are invaluable here and shall be raised not only for their remarkable clarificatory vision but also for their extreme relevance in the discussion at hand. Yoffee points out how in these evaluations all archaic states and cities become exceedingly similar and there is no real difference in the understanding of their origin and character. This is something which I argue is extremely revelatory about the manner in which a generalized notion of Urbanisation and

its traits have been taken as a explanation bolstered only upon the most primitive and mechanistic structural arguments. Further, the most sophisticated argument about the origin of the state further creates a problem for itself, once Magadha arises, as a pristine form, all else must emerge in the its wake and thus a whole literature has arisen which attempts to understand 'secondary state formations'. As this entire project of the atlas has been demonstrating at every stage very little of the metanarrative has actually been constituted from a study of the archaeological materials and the trends they suggest and thus a single explanation again has been writ large.

Yoffee's discussion of the social aspects of the transformations at work involves a consideration of many different aspects one of which brings attention to the question of how these changes were themselves understood and presented in the new societies they had forged. Yoffee argues powerfully and eloquently for how the collective memory of the coming of the city is remembered and socially understood and consumed in ways which are stipulated and ordained by the cultural discourses of these new societies themselves. Yoffee thus elaborated how the manner in which early Urban societies and those characterised as states understood their own condition in the form of specific tropes and ideas which were circulated not only as elements in the construction of the power structures but as ideas which bound and lent identity to this new social system itself. It is in this that the myths of the founder of the city is centrally implicated. The visions of the textual discourses upon the city, especially from a text which relentlessly and brutally at times, serves the coffers and the fortunes of the King should also perhaps be suitably read in that manner.

I have argued above that the meta-narratives explanation of the evolution of urban societies and the coming of the state are deeply flawed on account of their primary arguments as well as on the fact that the seem to occupy a different landscape altogether than the one which this analysis of the archaeological landscape has revealed. Further I have argued that there is little merit in reading the arthashastra and trying to understand our urban sites and seeking an understanding of how they have come into being and what their form represents. The next section shall now argue that the archaeological evidence across the Ganga basin presents very definite trends of changes in settlements which can be demonstrated to be integral to the rise of 'Urbanism' and have an extremely important bearing upon how we can understand the Urban forms of the Early historic. Further it can be argued that there are considerable indictors with which even a reading of the arthashatra and other such text based discourses can be relocated and this shall be attempted as well. For the purposes of this discussion it shall be necessary to break from the strictly chronological logic of the entire discussion of this chapter and include data from the subsequent 'Sunga-Kushan'

period as well and a consideration of the evidence from the gazetteer and atlas for those periods shall follow.

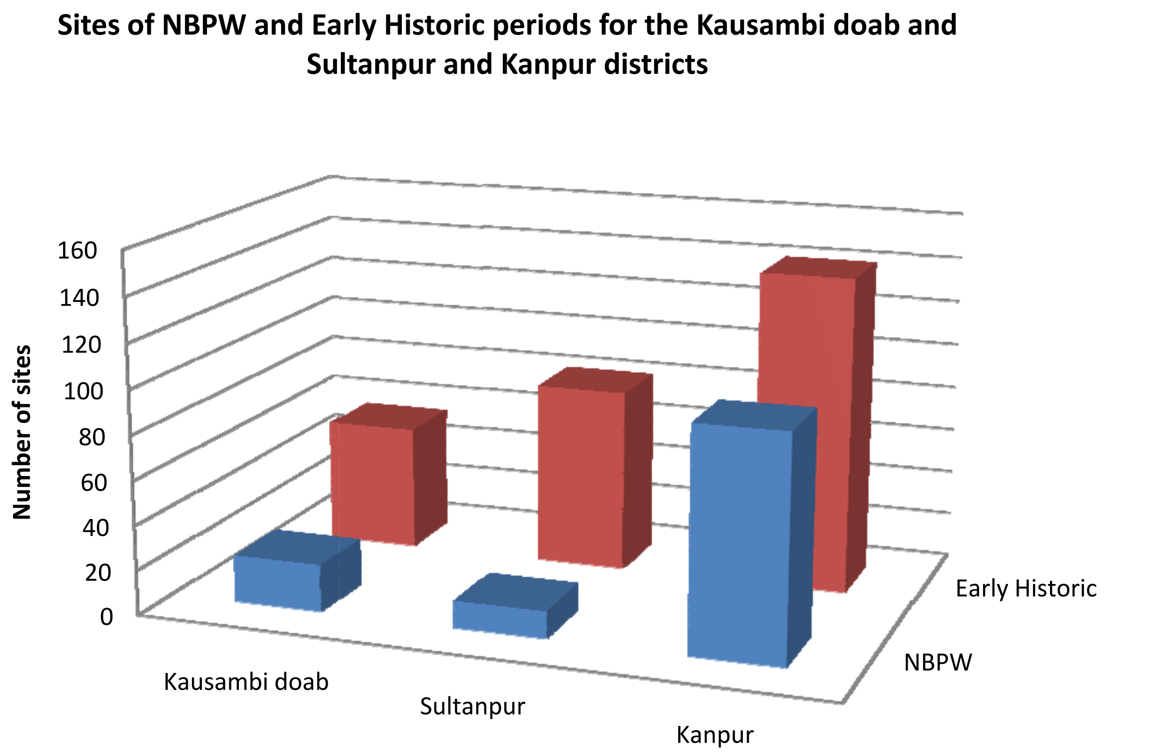
Along the banks of the river: Riparian settlements, their human ecology and the cities of the Ganga Basin

As an entry point into this discussion I shall begin this attempt to relocate the study of the ancient cities of the Ganga basin by drawing attention to the significance of a trend which I believe is extremely significant and cannot be simply overlooked. For its demonstration and for the purposes of the discussion of the many aspects of this section I shall draw upon the three main studies which have attempted to generate district level data for settlement patterns in areas which fall, conveniently within the principal zone of the distribution of the NBPW. These three studies are famously those of Makkhan Lal for the Kanpur area[263], Erdosy for that of the Kausambi region[264] and Ravindra Kumar for that of Sultanpur district and the adjoining areas of the middle Gomati valley.[265] My discussion above of the many phases of settlement and the cultural spheres and groups that I have argued for considerable revises the assumptions that all of these surveys operated with at the time, and this places deep constraints on the manner in which the nature of the evidence from each of these surveys for their earliest period can be used. Further I argue that while these evidences are complicated they each also suffer from a problem of the long and short chronologies of the NBPW phase and their own visualization of it which were necessarily based upon the evidence available in the 1980's when all of these were conducted. Nonetheless, they all do present significant and good geographic datasets for the consideration of the distribution of sites for the NBPW and the subsequent Early Historic – Red ware phase. These are the periods crucially linked to the questions of Urbanisation in the Ganga plain and they form a great dataset which can be interrogated for the premises which they were based upon and the manner in which they understood the evidence they generated. Notably, both the districts of Kanpur and Sultanpur were understood and presented as being areas where Urbanisation did not develop while Erdosy's study of Kausambi region has usually been received as the definitive study of these very processes. As I wish only to present a comparative analysis sites since discovered and new information about these regions is not presented for these areas. A further clarification is necessary, while site sizes were an integral part of

[263] Makhhan Lal, *Settlement History and Rise of Civilization in Ganga-Yamuna Doab, from 1500 BC to 300 AD* (Delhi, BR Pub. Corp., 1984)
[264] Erdosy, George , *Urbanisation in early historic India* (BAR international series ; Oxford, England: 1988)
[265] Ravinder Kumar, 'मध्य गोमती घाटी का पुरातात्त्विक सर्वेक्षण : आवासीय विन्यास', *Pragdhara* 2, 1991-1992, p. 89-96

the research design for Erdosy and Lal, Kumar anecdotally notes the sizes of some sites but did not publish a full table and it appears the measurement of site sizes was not a major part of his project.

Table 12 Comparative chart of settlement patterns across the three regions of Kanpur and Sultanpur districts and the Kausambi Doab area of Allahabad districts



	Kausambi doab	Sultanpur	Kanpur
NBPW	21	12	99
Early Historic	56	82	141

Table 12 clearly demonstrates a number of trends, the first of the massive nature of growth between the two periods, a feature which outside of these studies is hardly ever raised in the consideration of the archaeological landscapes of the Ganga basin. The trends display regional diversity in their intensity but are all agreed upon the fact of continuous growth through the periods. A major trend which is displayed in all of these regions is the extremely strong correlation during both periods between the distribution of sites and the rivers, both major and minor in the region. The two regions of the Ganga-Yamuna doab, are known to be drained by a series of smaller rivers in both the Allahabad and Kanpur districts. In Kanpur the Rind, Sengar, Pandu, Non and Isan cut paths across the Doab and drain various segments of it into the two rivers. In the Allahabad-Kausambi doab the situation is more unidirectional and the shorter Kilnahia and the longer Sasur Khaderi constitute

significant markers in the landscape and have carved their own small valleys on their paths to Yamuna. In the case of Sultanpur district, it appears that in addition to the Sai and the Gomati which are the major rivers, the small and numerous tributaries of both (the Naudhia, Pili nadi and Tingha nadi) are significant drainages which are complemented by the presence of a number of lakes, most of which are the remnants of abandoned channels and these too form significant sources of water. Of these three regions it is only in the Kanpur district where densities are higher that there are any sites which have actually moved away from the location away from rivers.[266] In The Kausambi region as well as in Sultanpur, even in the course of what are clear records of considerable demographic cycles of growth and the recorded processes of what appear to be fissioning and the founding of new small villages, sites along the small rivers and other reliable sources of water are chosen.

This is a trend which can further be demonstrated to have been visible across more extensive areas of the Ganga basin and has been documented richly by D.P.Tewari's sustained and multi-season explorations in the central and northern districts of the Ganga basin. Tewari has demonstrated that in all of these areas except for a small exception of 3 sites in the Sunga-Kushan period in District Kannauj, all others until the 'Medieval' period are constrained to locations alongside small rivers and the talabs and lakes of the region. This is thus a major trend in the settlement history and geoarchaeology of the Ganga basin and is one which I argue here is as deeply rooted in matters of preference as it is to technological constraints and economic ideas.

Living on the bank of a river, even a small tributary in the Ganga basin is a choice which is born out of the obvious and basic need for water in all manners of human activity. I argue here that the idea of residing along a river bank in particular becomes an important cultural idea and is demonstrable in a number of ways, the first of which are the trends of which have been produced above. I argue further that the combined demands of irrigation needs and water for animals and people alike were often met most appropriately by the small tributaries and at times in the past, even the nullahs or the topographic overbank drainages of the Ganga basin. While The Ganga and the Yamuna currently flow in deeply incised valleys, the tributaries do not always present such a channel morphology. Additionally while the Ganga in particular alongside other rivers which straddle sub surface lineaments (like the Sengar) and still others which discharge in the plains while arising in the hills (like the ramganga) have proved to have been treacherous and often given to massive flooding, avulsion and meander abandonment or Neo-tectonic driven incision many of these other rivers have

[266] Lal has argued that this represents a significant trend in the settlement pattern but he has failed in both of his major publications to demonstrate this as the number of sites which are situated off major rivers is extremely low through both periods. Makhhan Lal, *Settlement History and Rise of Civilization in Ganga-Yamuna Doab, from 1500 BC to 300 AD* (Delhi, BR Pub. Corp., 1984)

instead provided stable environments and good contexts for inhabitation. It is important to learn lessons from the increasingly rich set of studies which have investigated the fluvial pasts of these rivers and have come to stress both broad phases but additionally also the very particular and individual factors which have shaped the behaviour and the response of these rivers to climatic adjustments and situations.

While modern agricultural transformations of the landscape have comprehensively obliterated previous agricultural systems and traces of their organisation, my own experience of tracking settlements along the two rivers in the Kausambi area has suggested that canal cutting and the opening up of river waters to what plausibly would be agricultural land along the Kilnahai and the Saur Khaderi would have been considerably different operations. Such a possibility is indeed open along the banks of the Kilnahai where the river is not heavily incised at all and wiers could be opened with some investment of labour. The Sasur Khaderi, (literally, Father-in-law of the Khadar, or old alluvium) is a difficult river and has incised a narrow channel of which is often up to 2 to 3 metres below the level of the surrounding plains. As such, given the low amount of water which the river often drains, it can present a difficult proposition and water lifting would probably have always been needed in some measure. I do not agree that all water lifting techniques came to India in the medieval period, through the coming Indo-Islamicate technologies and argue that a false divide ahs been constructed, caused as much by a lack of continuity in source materials as by anything else. While new techniques like the infamous Persian wheel do no doubt arrive in later periods, a major transformation in the agrarian landscape come via the digging of small artificial lakes which provided at least for the water for a settlement as they quite often continue to do today. In this manner, alongside the judicious planting of crops which are best suited for rain-fed agriculture and the exploitation of rainwater collection in local depressions as well by means of wells, a period from circa the 8th through 18th centuries CE sees a massive expansion across the Ganga plains of the agrarian landscape and a detailed study of the archaeology of these transformations remains a major project which needs to be attempted and described.

It is clear thus that the early societies of the Ganga basin both chose to and were compelled to riparian settlement ecologies, which they both thrived in and also learnt to deal with the consequences of. The frequent record of floods at site, is a reminder of the price to pay of such locations and indeed perhaps the gift of such contexts to the archaeological record has been terms and cultures like the infamous OCP, which are nothing but water logged red wares. I argue here that another major component of the concerted use of riparian settings was the fact that they afforded connectivity which was fast and was cheap in terms of the labour cost. In each of the three regions,

from the NBPW period on, along the major rivers, i.e. the Ganga and Yamuna and the Gomati (the Sai and the Rind too are locally navigable in small boats across small distances) sites occur at regular distances and seem to be located often as stops along a convenient place on the bank, situated at locations where the bend of the river channel affords a more easy approach, not imposingly high cliffs nor a position of frequent erosion. I argue that it is for these reasons, amongst those which suggest that everyone desired close access to the rivers that when sites like these appear to grow, they grow extensively strung along the bank of the river itself, rather than any other nucleated form which would appear as a circular mound, or in any configuration away from the bank. While direct ethnographic analogies are often a source of confusion and misleading interpretations along the larger rivers the idea of a space of ghat seems to have been an important part of the evolution and eventual configuration of these mounds. As even today, ghats, or long stretches of easy access and activity spaces along the bank of a river are the site of a vast constellation of actions: they serve as spaces for toilet and washing, sourcing of water for all needs; they are further sites of ritual, worship and cremation and they are spaces which offer an ecology which provides food, sanitation and in the hot and dusty summer months the coolest spots which can be found. These are the reasons why even today, those settings which are not prone to active erosion, find villages perched on the very lip of the river and I submit here that for a similar constellation of reasons, but with one major exception the case was the same in the past.

This exception is the massive role which the major rivers by force of their connectivity played in the forging of the linkages and the connections which this entire exercise has been trying to trace and delineate. As I shall argue below this is a major feature in the affecting the growth of some sites in the early historic period to extremely large proportions while others remain more modest. Chakrabarti has recently drawn attention in his surveys across the Ganga basin of trying to understand the relevance and significance of places where rivers were and are crossed. Chakrabarti's interest in the delineation of routes brought him to this concern in the study of the basin which is dissected by rivers large and small, all of which can be more than a handful when they are in spate and at bank-full during the monsoons. Chakrabarti's consistent examination of this question is something which must be counted amongst a major landmark in the study of the settlement patterns of the Ganga basin as he has argued that sites which are favoured for easy and safe crossings today often coincide with mounded sites which suggest that the practice and the preference for the spot has a longer history and a rationale in the presence of the antiquity of settlement at the site.

I argue here that in the 'pre-NBPW period' almost of the largest sites currently known are similar in context to such a location. They are long mounds, spread alongside the bank of the river and are often amongst those which are suggested to have been at the intersection of river and land routes. I argue here that these are the preconditions of growth in the early societies of the Ganga basin. Independent of the cultural constrictions of centres, which are currently ill-documented for any and every complex, these are the true measure and the organic and native form which trajectories towards growth and indeed towards urbanism. Such an understanding helps us place the emergence of large urban centres within a framework of the evolution and growth of settlements in the Ganga basin rather than treating them as arrived, in whole form, apparently founded by Kings as has quite often hitherto been the case. I argue here that additionally, stressing that the recognition of these large riparian settlements allows us to open a very real window into the emergence of large Urban settlements in the Ganga basin.

To build upon this assertion this discussion shall now proceed to engage in a discussion of the distribution of the archaeological evidence for large sites, their setting, morphology and their chronology. This is something which would not have been possible had it not been for Chakrabarti's surveys, for he has provided for the first time across the Ganga basin, ballpark estimates of the overall size of many of these mounds. While his estimates often seem to be reckoned and not measures in any sense, they are as consistent a series as has ever been available and are extremely valuable in the data they provide. Additionally many of the sites which we shall consider here are sites which have been previously reported in some form or the other, but no information on their size and thus importance, especially vis-a-vis the period of greatest extent has ever been estimated by anyone, save Cunningham and perhaps Fuhrer. I present the evidence here in three categories, one which stresses sites which are truly massive and come to be at least 120 to 150 hectares and upwards of undisputedly settled area. These constitute a small set of sites and appears to be those which are truly metropolitan and occupy a very special place in a consideration of the processes and manifestation of Indian urbanisation. Table 13 provides as complete a list as is possible at present across four such categories of site by size and the presence of fortifications.

Table 13 Table of the largest sites by categories of size and fortification known at present in the Ganga Basin (and a handful from Madhya Pradesh and Rajasthan)

	Truly massive metropolis	**Largest sites 40 Ha and above**	**Second tier of sites Range of 10 to 30 Ha**	**Fortified Variable but usually less than 30 Ha**
1.	Pataliputra -?	Agroha	Maheshwar - Navdatoli	Eran
2.	Sravasti – 140 Ha +	Indor Khera	Malhar	Sankara
3.	Ahichattra – 170 Ha +	Ahar	Tripuri	Mathura
4.	Kausambi – 220 Ha +	Kudarkot	Rang Mahal	Bisauli

5.	Rajgir - ?	Awagarh	Purana Qila	Nagari
6.	Taxila-Sirsukh	Katragarh	Thanesar	Taulihawa / Tilaura Kot
7.		Ujjain	Sunet	Raja Ben ka Qila
8.		Vaisali	Prahladpur	Kashipur
9.		Kumrahar	Takiaper	Kopia
10.		Kashipur	Sarsawa II	Champa
11.		Raja Ben ka Qila	Sugh	Jai Mangala Garh
12.		Lakhmapur	Kurdi	Mangalagarh
13.		Sahabad	Katha	Kopagarh
14.		Sitapur	Mandaola I	Balirajgarh
15.		Kannauj	Loni	Vaisali
16.		Musanagar	Sonkh	Sankissa
17.		Hulas Khera	Bateswar Mata Khera Mound	Kampil
18.		Jajmau	Achnera	Masaon
19.		Reh	Bina	Ghoshi / Nahush ka Kot
20.		Kansmira	Mangawah	Khairadih
21.		Jais	Bhararpura	Pakka Kot
22.		Sringaverapura	Tirkhi	Katragarh
23.		Jhusi	Chakranagar	Manjhi
24.		Nagari -- ?	Munj	Bhita
25.		Sirkap	Ujhani	Thanesar
26.		Bhir	Jalesar	
27.			Bilsari	
28.			Buxar	
29.			Chausa	
30.			Manjhi	
31.			Sankissa	
32.			Mathura	
33.			Vidisa	
34.			Rajghat	
35.			Sonpur	
36.			Kopia	
37.			Champa	
38.			Nindaur	
39.			Ghoshi / Nahush ka Kot	
40.			Taulihawa / Tilaura Kot	
41.			Gola Raipur	
42.			Nigohi	
43.			Pacchaumi	
44.			Atranjikhera	
45.			Sakit	
46.			Rijor Khas	
47.			Param	
48.			Muhammadabad	
49.			Sanchankot	
50.			Manoa dih	
51.			Newal	
52.			Mohan	
53.			Dhruv Tila (Bithur)	

54.			Dalmau	
55.			Pasarwa	
56.			Kotra (Sabispur)	
57.			Manikpur	
58.			Sanghol	
59.			Ropar	
60.			Hastinapura	
61.			Bairat	
62.			Rairh (Rer)	

From the Table and Maps presented for this discussion a number of trends need to be stressed and highlighted. The first concerns the fact that truly massive Urban sites, which are at least a 100 Ha and above are very few and exhibit a very definite and marked distribution. This distribution is a product of a range of complex and long-term phenomenon and cannot easily be simplified and discussed at a general level. I argue here that if we are to associate such sites with large states and political systems these are the few that present unequivocal evidence towards that end. The distribution of Ahichattra, Kausambi, Sravasti and the two sites in Bihar in distinctly different sectors of the Ganga plains and with the exception of Rajgir and Pataliputra at considerable distances from each other is a significant and manifest record of the long-term spatial dynamics of political systems in the Ganga plains. All of these sites bear considerable continuities from the period c. 600 BCE through to at least 600 CE and in the case of at least Ahichattra, Kausambi and Pataliputra to 1100 CE and perhaps even beyond that date. It is clear that throughout the course of these periods these sites were not the centre of political systems at all times and that they were subject to a fluctuating and complex systems of the continual fashioning and remaking of political systems. Yet I argue that for considerable periods, especially in the early parts of the outlined period these were massive centres of economic, social and political systems and in the influence they seemed to have exerted over large areas around them, they can be designated here as metropolitan sites.

This is an argument based upon the fact that not only do these sites clearly dominate the regional landscapes like no other, the excavations at each of these has suggested that they are important centres, from which multiple discourses radiate out and structure the landscape. While a full consideration of these is not possible for each site, it can be suggested in broad terms here as the second part of this thesis addresses some of these questions for Kausambi in detail. Two threads of what can be a multifaceted discussion should suffice. In terms of the political content that is known from the site, in early coinage traditions and in the emblems and motifs which are central to them , each of these sites seems to define a tradition which becomes relevant to its identity and to that of the region. The presence of the 'lanky bull' motif and its persistence and the re-inscription upon it of different sets of rulers till the Maghas is suggestive of this creation and currency of a regional form and symbol. At each of these sites, considerable and continuously refashioned sacred landscapes are

both created and crucially located with reference to these sites, and the example of major Buddhist complexes, which would have been significant markers in the larger landscape forms another such example. At a more complex level, at that of the domestic and the individual these sites are amongst the early as well as known to be longstanding centres of distinctive traditions in terracotta art, which bear significant regional variations. I argue here that in the medium of the plastic arts that discourses and probably terracottas themselves which emanate out of such sites are important elements in the manner in which new identities are created and bound in the early Historic.

An extremely important feature of all of these sites, with the possible exception of special circumstances at Rajgir appear to have been the origin of the site as simple sites in a riparian context which appear to grow rapidly and massively in the course of the period of 700 through 300 BCE. In the cases of Ahichattra and Kausambi it is clearly established that the sites are settled at some point of time in the second millennium BCE and have undergone successive stages of growth since them. The case of Pataliputra is far from being clear but its immediate context suggests that some region in the Patna area is extremely likely to have had a cultural sequence similar to that of Chirand and Chechar-Kutubpur which are nearby and across the Ganga. At Rajgir as discussions above had highlighted in the period prior to those of the transformations under discussion the site is known from an extensive burial complex and similar trajectories are argued to have continued into the period. The case of the site itself seems to have been one which is marked by the opportunity to manipulate residual hills and a small valley they enclose as the sites for a definitely fortified and demarcated settlement.

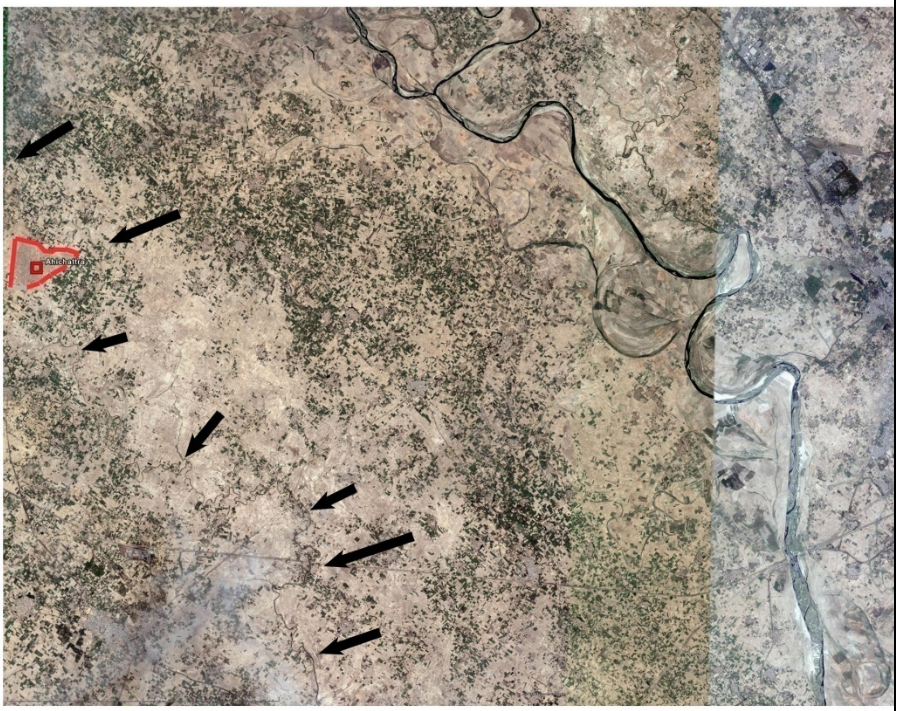
As a second level of general understanding about these sites and in the vein of complicating the simplistic and homogenising manner in which they have been understood I argue here that a consideration of the fortifications themselves suggests a complex history of the negotiation and demarcation of spaces which were already inhabited and populated with a variety of associations and meanings. As a first step towards a real consideration of the archaeological trends it is at once obvious that none of these sites, with the possible exception of Pataliputra (for whose wooden palisade no documentation on plan and suggested reconstruction exists), that none of the defined and walled spaces conform to the supposed register of rectangular and perfectly geometrical constructions. I argue here that this trend is significant and speaks of an important part of the urban process. All of these sites, especially Ahichattra and Kausambi come to be large organic and evolving sites before they come to a period where certain forces appear to desire to structure and modify this vastly growing landscape by marking its limits and by providing it with boundaries. Notably at all 5 of these largest of sites, there is extensive evidence from early periods of their having been considerable settled areas outside what come to be the fortifications. Thus the decision and

geography of the fortifications come to be questions of inclusion and exclusion which are understandably ones which are negotiated around significant and complex social divides and represent certain ideas about the 'city' and a vision of what it is to become.

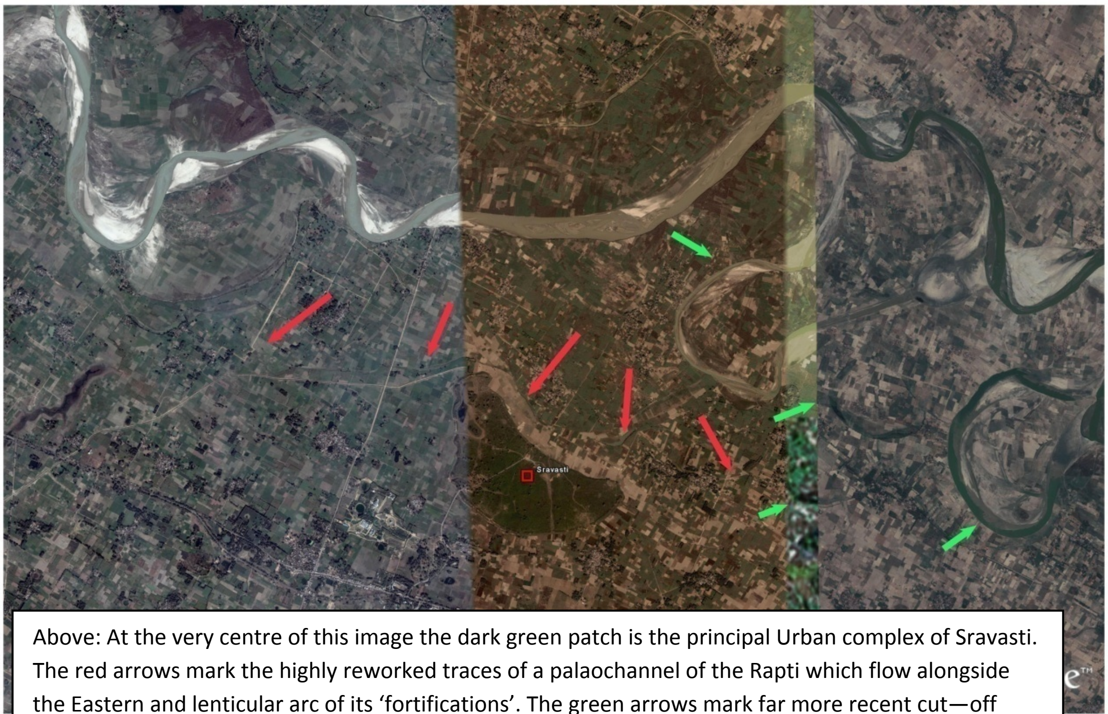
Recently, Smith has rightly drawn attention to the fact of how these city walls become symbolic resources of their own, their renewal and repair thus form as acts of royal will and power over the city and in as much as they are an investment in the cities fortunes they come to serve as means of legitimization as well.[267] I argue here that additionally, there appears to be a considerable possibility that these massive earthworks, were constructed at different times for different purposes. This is a trend which is also suggested by the only study which estimates of the labour required for their initial construction would have taken the entire population of some of these places a number of months to complete. As Chapters 4 and 5 shall argue for the case of Kausambi there can be no doubt that the location of site itself was chosen from the earliest settlement for the fact that it presented a high and safe bank on the Yamuna and presented a location which was marked by high alluvial levees which served as high ground during floods. Later as the site expanded parts of these levee's came to be used and incorporated within the developing system of walls which defined different spaces within a complex landscape of many existing settlements. At Kausambi itself two further observations can be made about the nature of these fortifications; the northern sector, which today presents a tall and high face is one which appears to have been entirely constructed in contrast to the eastern and western arms, which in part at least exploited the extant topography but also no doubt include large components of earthwork constructions. In what is a revealing statement about the city and its character, Kausambi was never fortified on the side on the Yamuna, it was open to the river and its banks served as busy but open areas with access to the city.

In the case of Sravasti in particular and in the case of Ahichattra as well, it appears that fluvial change in the Ramganga and Rapti may have been the cause and perhaps even the animating reason behind the construction of large earthernworks with the aim of providing the city some protection. In both cases the rivers display abandoned palaeochannels which are much closer to the city and may be presumed to have been active in the earliest stages of the site. In the case of Sravasti the very form of the fortifications which abut and follow the elliptical curvature of the palaeochannel are the strongest indicator of the probable manner in which the beginnings of enclosing the site arose which were subsequently transformed into ideas of walls which ran round the site and enclosed certain spaces fully while leaving others out. It must be stressed here that these are suggestions and would require detailed geoarchaeological work to sort out both the chronology of the ramparts, in

[267] Monica L. Smith 2003 'Urban social networks: Early walled cities of the Indian subcontinent as "small worlds."' in *The Social Construction of Ancient Cities*, edited by Monica L. Smith, pp. 269-289. Smithsonian Institution Press,Washington D.C.



Left: The red polygon is an accurate map of the shape and alignment of the fortifications at Ahichattra. The Black arrows indicate a palaochannel of the Ramganaga or possibly a large tributary or even a braided stream of a paleo-Ramganga in the immediate vicinity of the site. Cunningham described this area as extensively covered by ravines all of which have been turned back into plain land today for agricultural purposes.



Above: At the very centre of this image the dark green patch is the principal Urban complex of Sravasti. The red arrows mark the highly reworked traces of a palaochannel of the Rapti which flow alongside the Eastern and lenticular arc of its ‘fortifications’. The green arrows mark far more recent cut—off meanders / recently formed ox-bow lakes demonstrated the frequent courses changes by the Rapti

Figure 3-25 Panchromatic imagery from Google Earth showing prominently the nature of fluvial change in the neighbourhood of the sites of Ahichattra and Sravasti.

its different segments and the histories of fluvial change in both rivers. At any rate it clearly does emerge that by a time before the beginning of the CE at the very latest both sites have been considerably redefined and areas have been enclosed within a complex and massive series of fortifications, topped by and even in some cases and zones faced by brick walls.

In addition to these case studies for Ahichattra, Sravasti and Kausambi we may add by considering some of the other major cities. Even Taxila, known for its Greek connections and thought at one time thought to represent the coming of urbanisation itself to the subcontinent via these processes, does not present a form which suggests a founding or an act of planning along rectilinear spaces, Instead, certain areas were indeed walled and the topography of the entire complex drew upon a much longer tradition of settlement in the period. Thus the landscapes of Taxila are composed of many parts and important elements of these, especially in the symbolisms of the sacred landscapes also relate significantly to the geography of he surrounding hills. The case of Pataliputra which is thought to have been a city larger than all others is sadly not known at all, and no synthetic picture has been generated even from the few areas which had been excavated before the massive growth of modern Patna over the entire area over the course of the twentieth century. A major study of Rajgir has recently been attempted and it has sadly not been published in any part in any Indian fora and thus has remained unavailable. Nonetheless it appears to have stressed the use of the natural landscape of residual hills in an otherwise flat plain which presented an opportunity to wall off a small natural valley and construct a space for a large settlement within, one whose origins are still not fully understood in the culture-historical terms of early Bihar. Harding's study has apparently highlighted the significance of the natural landscape and its manipulation and has suggested that the site of Giriak on the nearby river is a related commercial establishment and a sacred complex abuts the site similarly at Pawapuri.[268]

I argue here that thus at the largest and most symbolic of the sites of the second Urbanisation, Urban form itself is an evolving and changing idea and a theme which sees many trajectories and possibilities, IT bespeaks thus of organic growth, of multiple possibilities and of opportunistic and instances of growth which is initially at least not contained, nor controlled. There is no blueprint and there is no given form which must be produced. It is equally manifest in the archaeological record however that a certain points of time there are definite and manifest attempts to control and structure these areas, a phenomenon which bespeaks of considerable social complexity as it

[268] Robert Harding's docotoral work is known to have been a comprehensive study of Rajgir and to have focussed upon its Buddhist toponomies. None of his work is at present available in Delhi or elsewhere in North India.

inherently seems to project and redefine the site in terms of a re-visioning of it as a ''city'', in our terms. What I seek to highlight by that final sub clause is that the manner in which these transformations and re-visioning take place must not be thought of as smooth and final processes or ones which had any aspects of inevitability about them. Indeed the effort to control and demarcate spaces, create features which create an interior world and exclude the rest and control access at certain points which are then strategic points of entry as well as of departure are as much processes which leave inhabited areas outside and create boundaries as much as they create cities and new communities as well as identities. As such our envisioning of these processes must not consider them in the hindsight of posterity and must imagine their articulation and slow progress against even possible forms of their contestation.

I argue here that a better recognised parallel is often raised in the transition of a number of sites from the early or pre Harappan to the Mature Harappan / Integration era phase. This is a transformation which it is argued is correlated with the arrival of planned / differently planned layout at these sites and the construction of major fortifications. In recent years as the idea of the Harappan urban form itself has changed it appears that the case here too may have been overstressed and the extent of the differences in layout exaggerated. Nonetheless the complexity and ruptures caused at these sites themselves are a good record of the manner in which these processes may have taken shape and been implemented. I submit here that these parallel should provide as symbol of the manner in which such transformations are preserved in the archaeological record and one which is relevant given that across the board we understand very little of the organisation of space and structures in the periods prior to the NBPW at almost sites of the Ganga Basin.

In attempting to carry this discussion forward I argue here that these processes are by no means limited to the largest of sites and in fact a much broader and more widespread discussion can be entered into by considering a second tier of sites, which tends to cluster in a size range of about 40 to 50 Hectares and thereabouts. One such site, Sankissa shall be discussed first of all as it provides an excellent example of the preconditions and structuring ideas with which Indian archaeology, has across many different times in the discipline approached the idea of the Urban site. Cunningham himself, whose project of chasing the shadows of the Chinese pilgrims often took him to city sites which he was only to happy to survey and briefly excavate had the following to make of Sankissa. He noted that the site appeared to have a network of sites around, some of which were clearly stupa sites and one of these was at the heart of a large mound. On the periphery of these mounds were located a low range of earthen work remnants of walls, which Cunningham could only bring to

describe as tolerably regular dodecahedron, a description of what are really a set of low circular walls running around a broad and almost stereotypically circular mound is an evocative description of how the search for Urban forms has been structured in key ways by a search for patterns and chimeras of the western post-enlightenment intellectual and social traditions.

The example of Sankissa aside, I argue that having broken down the idea and the extremely limiting formulation of the ancient Urban form of the Ganga basin we may now approach to revisit the idea entirely and seek from the archaeological patterns trends which inform us about the question. The most consistent and numerous type of site which emerges in this size range during the early historic period is precisely the type of site which has been described above as the favoured conditions of riparian settlement ecologies. It is a marked and repeated trend that a number of sites in the heart of the Ganga plains (and outside this area as well) are grow in a fashion and a manner that they are strung along the bank of a major river, extending anywhere between 500 to 1000 metres and more along its bank and to a range which is usually anywhere between 200 to 1000 metres away from the river inland. These sites are the most consistent form of settlement growth and their significance and the need to consider the afresh shall be demonstrated here with reference to an intensively surveyed zone, that of Makkhan Lal's Kanpur district.

Lal's survey has been known in Indian archaeology to have been an example of and a case study of how even the second Urbanisation was a limited phenomena and Urban sites did not extend everywhere. Indeed Lal himself states that there are no Urban sites in Kanpur district and Erdosy and others who have used Lal's data to build upon have often argued that this indeed is the case and the massive patterns of growth which he documents are in fact part and parcel of the fact that the urbanisation of this era is a localized process, involving discrete political powers which found and foster cities, amidst a consideration of other factors. Three of the largest sites of Kanpur district, Musanagar, Jajmau and Bithur may be raised here as they all share important characteristics. They are all located on the trunk rivers of the region. Musanagar is on the Yamuna and its location suggests that it was at a key location amidst routes and connection to settlements in the Vindhyan region across the river about which little is still known. Jajmau and Bithur represent similar sites on the Ganga and too are crossings and are sites which probably mark the orientation of land routes across the Ganga-Yamuna doab and their directionality across the Ganga and further North. It is clear that at least in the case of Musanagar, Lal clearly underestimated the area and a similar trend seems to be in evidence at the sites of Jajmau and Bithur too. Perhaps this is born out of a lack of recognition of the massive nature of the encapsulation of the early deposits at these sites but the trend is marked and significant in the case of all of three largest sites located on the banks of the

major rivers. My own experience with the sites of Jhusi and Sringaverapura in the Allahabad region suggests that the nature of the unconsolidated archaeological sediments and the massive geomorphological activity in terms of overbank and topographic drainages as well as the tremendous incisive power of receding flood waters has often led to surveyors only considering one of what are a series of mounds at the site. At Sringaverapura indeed the situation is far from simple and it appears that while at least one of these drainages existed prior to the massive building up of the mound at the site, a series of three other drainages all deeply incised today, have only subsequently dissected what was once, and by my estimation during the early Historic a long and vast settlement on the northern bank of the Ganga.

Lal's error thus is understandable and a manifestation of the manner and limits of traditional methods of survey, even as his efforts are undoubtedly some of the most exhaustive ever made for a region as large as a district. As recent surveys in the Musanagar area itself have demonstrated though, these methods are not exhaustive and the discovery of two stupa complexes in the immediate vicinity of Musanagar have again stressed the role and the importance of the site, in a manner which hitherto had been supposed for only recognizably urban sites. I argue here that this, the form of a large and extensive riparian site, is one which is an expression of early urbanism and the sooner we come to terms with this and seek to understand it we shall come to an entirely different, more complex and evocative picture of early Indian urbanism. I argue here that this is a fundamental question, which is not only implicated within the discourses of modernity and colonial lens' to the past but is also one which is relevant to the questions of text and archaeology. Hitherto, all sites considered Urban have either been those which are manifestly massive and are also enumerated in texts, or others are those which have matched the criteria's of Urban forms as we have reimagined them on the basis of selected and fragmentary discourses from texts. Alternative approaches have culled and enumerated long lists of the different terms used for inhabited places in literature and have suggested taxonomies of forms on the basis of those. Other approaches have in a similar vein collated vast datasets of toponyms and have plotted them in suggestion to correlated sites, essentially an extension of Cunningham's project extended to other oeuvres and traditions of literature. I put my point about these approaches bluntly here: while no doubt these can yield much that is valuable about the study of the cultures of urbanism in the Ganga basin, our textual traditions are not the adequate sources, if indeed there are any such, for any period, upon which an understanding of the processes and transformations of Urbanisations can be entirely premised. These texts are neither gazetteers nor are they considered sociologies which describe the transformations, they are cultural representations and often complex narratives which emplot their

own content discursively and with meaning and purpose in a variety of cultural locations, some of which include what they constitute as nagaras, gramas and other settlements.

I argue here additionally for the consideration of such sites as a significant category as it also helps to break down the major disjuncture which all considerations of the subject of Urbanisation have hitherto operated with in the idea of the city itself. This disjuncture is apparent at many levels, the most obvious of which is perhaps in the manner in which the histories of evolution I traced above for sites have hardly been part of their considered history. There may be early occupation but the cities are manufactured into being. There may be evolution in the hinterland, a prelude of the previous distributions of sites and the further evidence of a demographic upswing, but these do not significantly impact upon or suggest any trends of significance of the Urban sites themselves, a paradigm which guides the manner in which Lal states that there are no Urban sites in Kanpur district. For Lal there are no rectangular forms, no fortifications and thus no category of sites which can inform the study of Urbanism. I argue here that this a disjuncture which has been built up in the historiography on many levels, including that in which culture-historical epistemologies understand the very material culture itself. For example, given the rush of new knowledge about the societies of the Ganga basin in the second millennium BCE, see the recent structuring of debates in terms of the Urban and pre-Urban context. New wine but old bottles, and the evaluation seems to be the same.

I further build my discussion here by returning to what is one of the touchstones of the debate on early Indian Urbanism, the slim monograph by Amalananda Ghosh called *The City in Early Historical India*. Ghosh drew upon his vast knowledge of Indian archaeology to write what was taken at the time as the definitive and major clarificatory statement on the timing, character and implications of the second urbanisation. I submit here that this monograph I argue below has been selectively read by many and all in the subsequent period and that very significant statements made by Ghosh have been downplayed and ignored altogether. What is important in the present context is the subject of Ghosh's emphases.[269] Ghosh identifies like others, contemporary to him and ever since, that there are a number of traits which suggest the rise of a different order. His formulation thus answered to the primary need for a theory of origins. Yet he also advanced a caution that others have not heeded. Ghosh wrote that "Our limited present day knowledge on the material transformations of rural habitations into urban ones would tend to indicate that the revolution, if there was any, was slow … the evidence [is] too insecure for building up of any theory, of for an extensive application of

[269] A.Ghosh, *The City in Early Historical India*, (1973, IIAS, Simla) Ghosh labours to argue for how surplus is a social product not a technological one and further advances a theoretical framework which reads the work of Childe and the others advantageously. Yet his text is dominated more by a literary analysis of terms used in texts for cities as well as an examination of Janapadas.

any existing abstract theories … all that can be said is that the situation was favourable for the rise of cities, and they did not lag behind". I do not believe that the significance and judiciousness of this statement need further explication, except for a qualification which would suggest that the processes of expansion and growth when they do occurs are not slow and instead are rather rapid.

A final comment on Ghosh must stress that since his time, the set of tentative traits which he identified as suggesting that 'the time was right' have now been generalized into an explanation at large for the processes of urbanization. An evolutionary paradigm of inexorable growth towards the state, linked up to ideas of colonization and settling of the Ganga plain and consequent maturation from chiefdoms to states has become the orthodox opinion without it can be argued any archaeological evidence.

I argue here that one exchange which a certain reviewer of the monograph by the name of H.D. Sankalia made with Ghosh is extremely revelatory about the limits of Ghosh's work and subsequently of the willingness of Indian archaeology to examine and interrogate the paradigm.[270] Sankalia wrote his review with a sense of bitterness and a sense of concern with where these discussion on Urbanism were leading to. Sankalia's grouse stemmed form the fact that amidst Ghosh's list of the 20 odd sites he named as Urban there was no place for Sankalia's own Maheshwar, which he almost apologetically termed as at least a town if not a city, and a complex which had a demonstrable past. Maheswar and Navdatoli as a complex are significant and massive complexes in that sector of the Narmada valley and mark an intersection in the region which remained possibly the largest site in what is all of modern Madhya Pradesh for a very long period of time. Its failure for the traditionalist paradigm is its essentially and in the case of the two sites, on opposite banks, doubly riparian character. I argue that such sites, which are large and form perhaps the earliest places where larger settlements, involving multiple functions and supporting higher populations and creating new trends in the hinterland exist in many if not most regions. In the central zone of the Ganga-Yamuna doab in particular the list is easy to roll off: Jhusi, Sringaverapura, Lacchagir, Rajghat, spread east from Kausambi and in the other direction to its west lie Reh, Musanagar, Jajmau and Bithur. All o these sites have considerable histories which stretch back to the second millennium BCE and in some cases extend even further. They often grow to a size of what I estimate to be 10 to 15 Hectares, a site size which is considerable even in the medieval periods and even today in the Ganga plains, and they do so often in a period prior to 800 BCE. Further as the discussion above has established even the largest sites bear significant suggestions of having shared similar trajectories.

[270] H. D. Sankalia, Book Review of A. Ghosh's *The City in Early Historical India* (Simla, 1973), Puratattva, Volume 7 (1974-75), p.108-110

The evolution and consistent form of the earliest sites as well as the largest tier of sites other than the metropolis in the form of extensive riparian urban settlements is a trend which is in dire need of rehabilitation to its rightful place in south Asian history. Sites form in this manner as a trend far more frequently and over a longer chronology than any other form. I submit here than when the ancients thought of the largest sites in their landscape for many periods, and even after the rise of the metropolis in many areas, they thought of such sites. It is time we overcame our ethnocentrism and recognized the same.

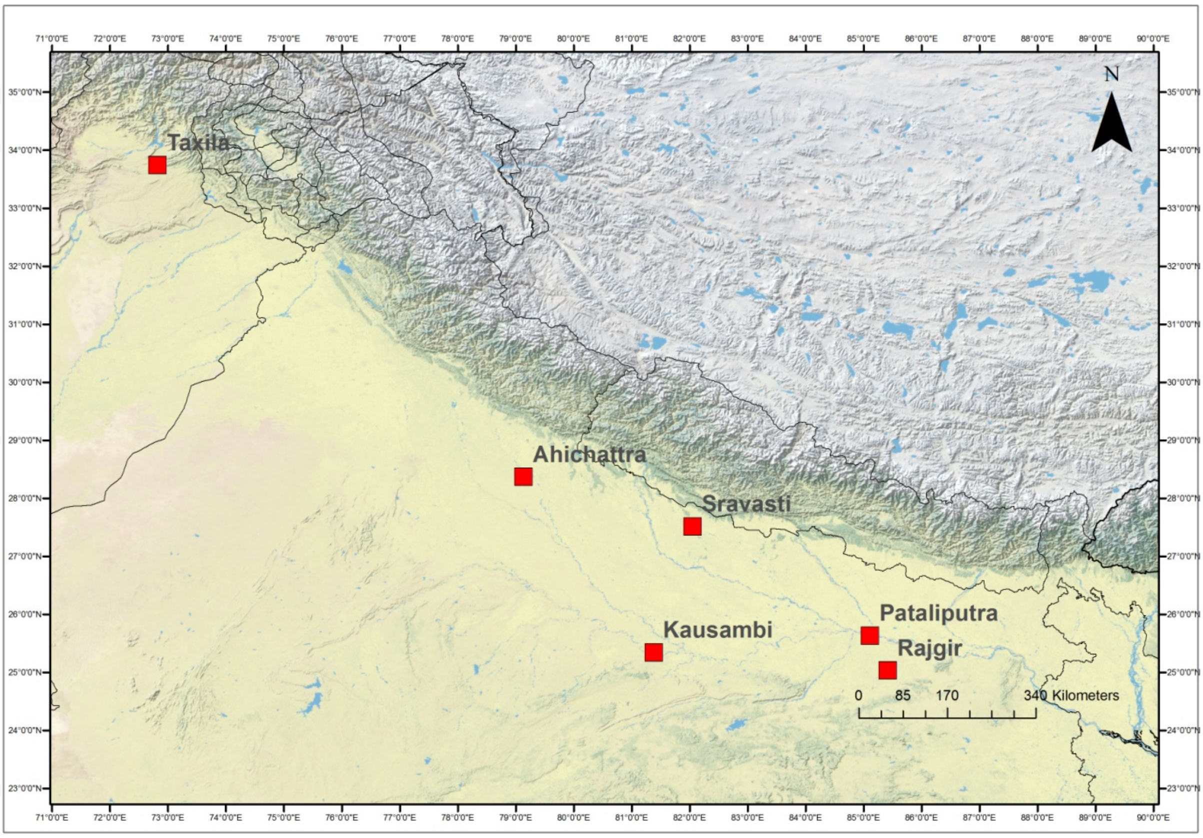


Figure 3-26 The six major metropolitan sites of the Second Urbanization

A crucial question which should now concern is the manner in which these sites, and the varying patterns of their emergence relates to the clearly documented processes of political elaboration across the Ganga basin. This is a feature which again has been read in manner which has stressed the textual evidence rather than that which is coming forth from the archaeology. I argue here that even in the evolutionary origin of the consideration of the emergence of 'political' societies in the Ganga plain our discussions have tended to take literary tropes for reality and construct elaborate geographies out of those alone. I do not argue here for the invalidity of such a project but I do question strongly what we expect to learn from it. Linguists have apparently taken such early expressions of territoriality as very definite markers of the presence of societies marked by

considerable differences in identity, linguistic patterns and even it would appear ethnicity. Historians have generally not taken the discussion any further than the narrative they have received it from. A conflation of Later Vedic and early Buddhist texts has very often been used to project a picture of the Ganga basin and its surrounding areas as populated by Janapadas, out of which with the rise of Kingdoms arise the six Mahajanapadas. Literary tropes have at times been embellished with structural theory but there has not been any consideration of the manner in which these units express this territoriality and difference in identity in any form which would be manifest in what would otherwise have been expected to have been its most direct record: material cultures.

I submit here that this is a position which has often been taken as something best explained by the bounding of rivers. A geography of old rivers correlated with their ancient names has often been made the basis of the location of these geography of incipient societies and I argue here that these identifications often held to ever so securely are on thinner ground in many cases than readily apparent. While identification is one issue, there have rarely been any attempts to understand these issues vis-a-vis the archaeological landscapes and the trends they suggest. As almost all previous attempts were based on extremely fragmentary data and anecdotal evidence I cite here the observations of Chakrabarti upon the completion of his own monumental efforts to come to terms with the Ganga basin. Chakrabarti considers the issue of Vatsa at length and eventually comes to a conclusion that even this area, bounded by a major confluence perhaps on one end is purportedly identifiable so loosely that it could extend for vast stretches of territory covering distinct archaeological zones.

My position here is that there is little merit in continuing to stress such a pastiche of literary fragments. I do not doubt that some if not all of these were important elements in the landscape at some point but their identification should not be an archaeological quest which aims to structure and control the manner in which we understand our evidence. I argue here that the earliest material manifestation of these, the earliest coinage series which have been attributed to different janapada's may serve as a good entry point into when these units become viable, visible and important. I attempted to come to terms with the vast evidence of this corpus of evidence but that was simply a challenge that was beyond the means of the two years of this dissertation. There is no means by which a non-specialist in numismatics can so quickly address the whole set of issues in their attribution and the strength of these claims but I do have the following set of observations to offer. There appear to be a complex set of overlapping sets of symbols not all of which may relate to the often presumed rather than geographically congealed distributions which they are assigned to.

The imperial series further massively complicates the issue considerably. My interest in the issue was to try and understand distributions across the Ganga plains, an issue whose complexity and the lack of comprehensive data regarding symbols is simply too massive to have been bridged by one study alone. There also exists a massive problem regarding the completely unsorted and massive data mountain of coins which have been found outside of hoards in the context of archaeological sites, a potentially very useful dataset but one which is completely untapped. My own impression is that significant trends may emerge but we need far more detailed publication on what numismatists themselves consider the dynamics of these early systems to be before this debate can actually feed into the one this discussion began with.

To relocate this discussion on the emergence of political forms I argue our best indicators remain in the realm of settlement distributions and in understanding typologies. As I argued above, the twin sites of Atranjikhera and Jakhera mark a major centre by the year 1000 BCE and a list of other such major centres known to exist at the time may be developed. Yet, this would be a dataset which is woefully inadequate on count of the lack of site sizes in the early periods. A far more comprehensive dataset exists for sites of the period of the early historic, a period for which political regions, formations, their dimensions of control and indeed the shifting geographies of these are all also equally unexplored. I argue here that this has been a marked failure of the metanarrative, which has often claimed its difference and its distinctiveness from the traditional / nationalist histories by a claim to have provided a meaningful history of socio-economic change. While it has provided a structural theory of change, it has done so by making first technology the root of urbanism, then empire the sole handmaiden of the coming of political change in an otherwise static and atavistic landscape and finally by suggesting a rubric of localised formations driving agrarian expansions. The last formulation has struggled to overcome its own limiting structuralisms to comprehend the various dimensions of the period but I argue here that the formulations for the early period have been consistently based upon a hierachisation and an ordering of the evidence which has equally been based upon received wisdom as it remains informed by criteria's of whiggish notions of history as grandeur and of meanings in located in grand narratives over large swathes of time and space rather than over any small period.

Histories of the state thus are about the Mauryan case and the subsequent formations in it wake. The Kushan empire has been seen a something of an ideological construct alone and further the next major treatments are only of the Gupta and Vakataka empires. Only in the subsequent periods is there are amore widespread and regional focus. I argue here that the major issues n modelling states and polities in the early historic relates to this myopia and to the unilinearity of this vision.

This rests equally on a trope which is as colonial as it is based upon its subsequent ratification and aggrandisement: this is the valorisation and the consideration of the Mauryas over and above all else. I argue here that there are distinct and regional formations such as the Mitra polity of the North-western zones, the Magha state of Kausambi in the 3rd to 5th CE and a whole plethora of further examples which could be enumerated here which provide extensive histories of the fashioning of states and a multitude of political discourses which fail to find mention in any history of ancient India.[271] I argue here that in these are situated perhaps more eloquent and relevant processes of socio-political trends and processes than those which have been studied and generalized from the example of large formations like the Mauryas, Kushana and Gupta states. Further, the characterization of these polities has only proceeded via textual means, whether from legends in texts or from epigraphs which are more often than not considered independent of archaeological context and distribution. I argue that the elision of these processes, which are multiple in their existence, multivocal in their discourses and projects of fashioning polities and which cover almost all of the Ganga basin and the other regions considered here in a manner of sunlight and shadow, enjoying the dappled fortunes of success in these measure has been the major failure of the metanarrative. I cannot here provide a history of any of these but I argue that a re-centering of archaeological categories of urban and a new vision of social change and evaluation as has been argued for here shall provide for a first step towards a rehabilitation of these processes and a synchronous consideration of their roles in the early historic worlds of Northern India and indeed as similar processes are known for other regions too, across south Asia too.

As a clarification of these extreme problems of modelling and understanding later political processes, even when more complex forms and more traditional evidence exists in plentiful I point here to a few studies which have tried to revisit these questions and interrogate the picture which has been presented with an eye towards archaeological indicators from concurrent records. Sinopoli's study of the Mauryan and Satavahana 'empires' is an important study as it eloquently comes to an assessment, especially of the latter case as being one where there is 'more form than substance' in the manner in which the discourses emanating from the political centres in the form of epigraphs, sculptures and in monuments seems to be of an order which does not bear relation to any other such manifestations or any other such records of the creation of territories and imperial spaces in the archaeological record. Sinopoli also places considerable emphasis on how in the lack of landscape level data it is difficult to assess real trends beyond the sites of monuments and capitals and additionally argues that '[the] problematic nature of the archaeological and textual evidence

[271] Devendra Handa*, Early Indian Coins from Sugh* (Sundeep Prakashan, Delhi, 2006) , Lahiri, Bela, *Indigenous states of northern India, circa 200 B.C. to 320 A.D.* (Calcutta : University of Calcutta, 1974.)

does hinder our ability to examine relations between polity, economy, and social/ ideological processes.'[272] Previously and in a different context Sinopoli and Trautmann has emphasized the significance of the Mauryan state and its study and characterization has significant and troubling connections with the anxieties of the modern Indian nation state.[273] There is allegory and a trope of unity in which the arguments for the Mauryan empire have been made and I submit here that these subtexts and intellectual preconditions are extremely important elements in the manner in which the unilinear narrative can hope to describe the history of ancient India as one which is linear and characterised by trends at a high level of region and structure and that local processes are but variations upon an essential and unifying theme.

Monica smith's extensive work has provided a new host of perspectives on the issues of early Indian urban processes which have raised the issue at a number of levels, including middle range[274] and large sites[275] as well as from the perspective of a synthesis and overview.[276] Smith has grappled with these issues of the archaeological indicators of the emergence of complex societies and the emergence of large-scale state like polities at a range of levels and has come to a new and considered opinion of the processes of the period under discussion. Smith's final evaluation has been one which has stressed the importance of the forging of complex economic networks at a arrange of nested scales in the early centuries CE and she has stressed that these indicators seem to be far more side ranging and diverse than the generally weak indicators of small scale polities in many regions, like Vidarbha in the same period. Smith has subsequently also remarked that 'circumstance of strong economies in a relatively weak political environment again highlights the potential for the study of urbanism before and in the interstices of regional state-level consolidations'[277]. Further Smith argues that 'By the 4th century A.D., many urban centers experienced a hiatus of population growth in a decline that lasted for several hundred years. This period of relative urban neglect coincided with the development of the first sustained large-scale

[272]Carla M. Sinopoli, 'On the Edge of Emprie: Form and Substance in the Satavahana Dynasty' in Susan E. Alcock, Terence N. D'Altroy, Kathleen D. Morrison, Carla M. Sinopoli (eds.), *Empires: Perspectives from Archaeology and History*, (Cambridge and New York, Cambridge University Press, 2001), p. 177

[273] Thomas R. Trautmann and Carla M. Sinopoli, 'In the Beginning Was the Word: Excavating the Relations between History and Archaeology in South Asia', *Journal of the Economic and Social History of the Orient*, Vol. 45, No. 4, Excavating the Relations between Archaeology and History in the Study of Pre-Modern Asia [Part 1] (2002), pp. 492-523

[274] Monica L. Smith, *The Archaeology of an Early Historic Town in Central India*. (BAR International Series 1002, British Archaeological Reports, Oxford., 2001)

[275] R.K. Mohanty, M.L. Smith, T. Matney, A. Donkin, and GA Greene, 'Archaeological Research at Sisupalgarh 2007: An early historical City in Orissa' *Puratattva*, No. 37, 2006-2007, p.142-155

[276] Monica L. Smith, 'The archaeology of South Asian cities', *Journal of Archaeological Research* 2006, 14(2) and Monica L. Smith, (Editor). *The Social Construction of Ancient Cities* (Smithsonian Institution Press, Washington D.C, 2003)

[277] Monica L. Smith, 'The archaeology of South Asian cities', *Journal of Archaeological Research* 2006, 14(2): p.117

polities in the subcontinent, such as the Guptas in the north and the Ikshvakus, Vakatakas, and Chalukyas in the south. When urban life did continue, it appears to have been less prosperous than before'[278] Smith's position on the emergence of large scale polities, which she characterises as the first to be sustained is problematic even as it is an acute comment about the manner in which we understand and model political processes in ancient South Asia. Smith's later states are indeed more visible but ironically they suffer from exactly the same problems of visibility and of archaeological indicators apart from epigraphs and monuments and thus are very difficult cases, much in the manner in which Sinopoli has characterized the Satavahana.

I argue here that Smith's synthesis draws in many crucial aspects upon the metanarrative and these have served to constrain the manner in which her analysis can revisit the questions of urbanisation and of the emergence of complex societies in northern south Asia. By and large Smith ratifies that there is major break between the periods between the end of the Harappan period and the emergence of cities, as noted above her synthesis also argued for Urban decline from the 4th century CE onwards. These positions which I contest and demonstrate here to be faulty (for questions of the early medieval and urbanism see Chapter 5) are by and large adhered to and her synthesis which is interested in other questions can thus be understood as taking what is a generally uneasily agreed upon consensus. Smith has brought fresh consideration to the idea of the city itself, and has argued for a continued relevance of and a need to revisit Childe and his theory of traits as they provide for useful heuristic which also enable cross-cultural comparison. Smith's position is complex and has much to offer, especially in how she demonstrates that if we imagine cities as sites of variable configurations of specialists rather than just of demographic matters and those of size. Smith eloquently describes her viewpoint: 'I examine the role of cities as centers of social and economic networks that remained stable in politically fragmented landscapes and in which urbanism was not always connected to territorial political activities. Complex societies consisted of a set of interactions among stable points in the landscape, in which population centers and other fixed locations were the basis for both hierarchical and heterarchical interactions. Any network's principal actors required physical locations as a base for political actions, whether they governed a larger hierarchical state or a smaller polity subject to the give-and-take of regional heterarchy. Political and religious leaders became focused on the actions undertaken in these places as a means of materializing abstract notions of large or diverse landholdings. This may be the most important observation that we can make about the relationship between cities and states.'[279]

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[278] Monica L. Smith, 'The archaeology of South Asian cities', *Journal of Archaeological Research* 2006, 14(2): p.123-124

[279] p.108-109

Smith's work has done much to relocate the consideration of cities away from the 'myths' of their founding and towards a consideration of their social construction and their extremely varied and important roles and arenas they present in the landscape. Yet I argue here that if we do not posit this new understanding of the possibilities of the new urban landscapes within a similar willingness to re-examine the meta-narrative and to look at the long-term evolution of societies in the Ganga basin and other regions afresh we shall end up with characterisations such as those which only serve to perpetuate the problem of modelling and comprehending political processes in the worlds of ancient South Asia. As the last quote from Smith's work herself presents the case stable points in the landscape are crucial epicentres of complexity and urbanism. My discussion here has attempted to demonstrate that the patterns of the archaeological record from the Ganga basin present such a trend for periods which extend further back in time and additionally demonstrate a much wider distribution of such features. My discussion shall now attempt a brief discussion of how even the fragmentary patterns of the settlement record demonstrate a significant range of urban forms and how they might relate to different combinations or roles, functions and significances.

Beyond the metropolitan ramparts: Urbanism and its many forms and locations in the Ganga Basin

My discussion has hitherto evaluated the evidence of the largest cities and has suggested a significant hypothesis about their origin. I have argued for how in the Ganga basin in particular, the importance of riparian settlement ecologies is a fundamental feature of the long-term settlement patterns of the Ganga plains. With very few and countable exceptions almost all large sites, emerge within this paradigm of settlement and some of these undergo exceptional histories of subsequent growth and transformation. Here I shall begin by considering different patterns of the distribution of these sites and suggest a preliminary hypothesis about the other general range and types of sites which populate the early Historic landscapes and suggest significant ways in which socio-political processes may be understood and comprehended.

As an entry point into this discussion I wish to raise the fact that large riparian sites were extremely important and complex locations and that they must not continue to be considered uneasily, in terms of categories like 'towns' or relegated to a secondary consideration when we imagine political processes. I argue here that the geographic distribution of the metropolitan sites of the Ganga basin and the relation of other categories of sites bears a very interesting co-relation and one which may suggest increasingly definite and fertile possibilities for the ways in which we can study and model processes of political formations and the articulation of the same.

In the triangle defined between Sravasti, Ahichattra and Kausambi there are if we are to go on the received wisdom no archaeological sites which we can understand as Urban. As Figure 3-27 shows is we consider a region with a 100 km radius around the modern city of Lucknow there are not only a few but the most regular distribution of riparian urban settlements which are large (greater than 35 to 40 Hectares) in this region and which seem to have been the definite and complex landmarks in the landscape. As a discussion of many of these would be extensive and cannot be attempted here I argue that even this category which I have defined must not be taken as label which can characterize and define all. Sites like Musanagar, Reh, Kannauj , Jajmau and Sitapur relate to intersections of the networks across land and rivers and without further investigation can be understood in that manner. I argue here that the sites of Sringaverapura and Hulas Khera should serve as important reminders of the manner in which our preconceived notions should not structure what we can expect from these sites.

Sringaverapura is a complex example of such a riparian site, a hitherto unknown but significant portion of it has been eroded away by the Ganga and present site estimates would struggle to place it even at 40 hectares for the period, although the site extends for more than a kilometre alongside the river. When excavated the site was dug in the hope of exploring its associations with the Ramayana but its excavations have yielded what is perhaps still a unique and complex record of the much yearned for monumental public architecture. The series of tanks built to take water off the river Ganga and bring it, to what must have been a location at least 20 metres from the bank into a large and complex series of tanks is a unique record for the interest and manner in which sites can grow and the undocumented range of institutions and projects which interested populations at the time.[280] The series of tanks at Sringaverapura also serve as a good place to bring up an aspect of early religiosity which has an important intersection with riparian settlement ecologies: the idea of the sacred in a larger and complex cosmogony which relates to water, comes to be a manifest in one form amidst others which is called the *tirtha*, (loosely translatable as fjord or crossing points of rivers). The idea of the tirtha, especially as sacred spots where rivers, sacred beings themselves can be appropriately worshipped is also one which is chained from an early period to an idea of itinerancy, and the need to travel to such places. Thus I argue that while the various regional manifestations of Buddhist sacred landscapes and their complex associations with the early and rapid transformations of urbanisation are well known there are other sacred geographies and networks which stitch together no doubt various components of the landscape I am trying to describe.

[280]B.B. Lal, *Excavations at Sringaverapura* (1977-86), Vol. I

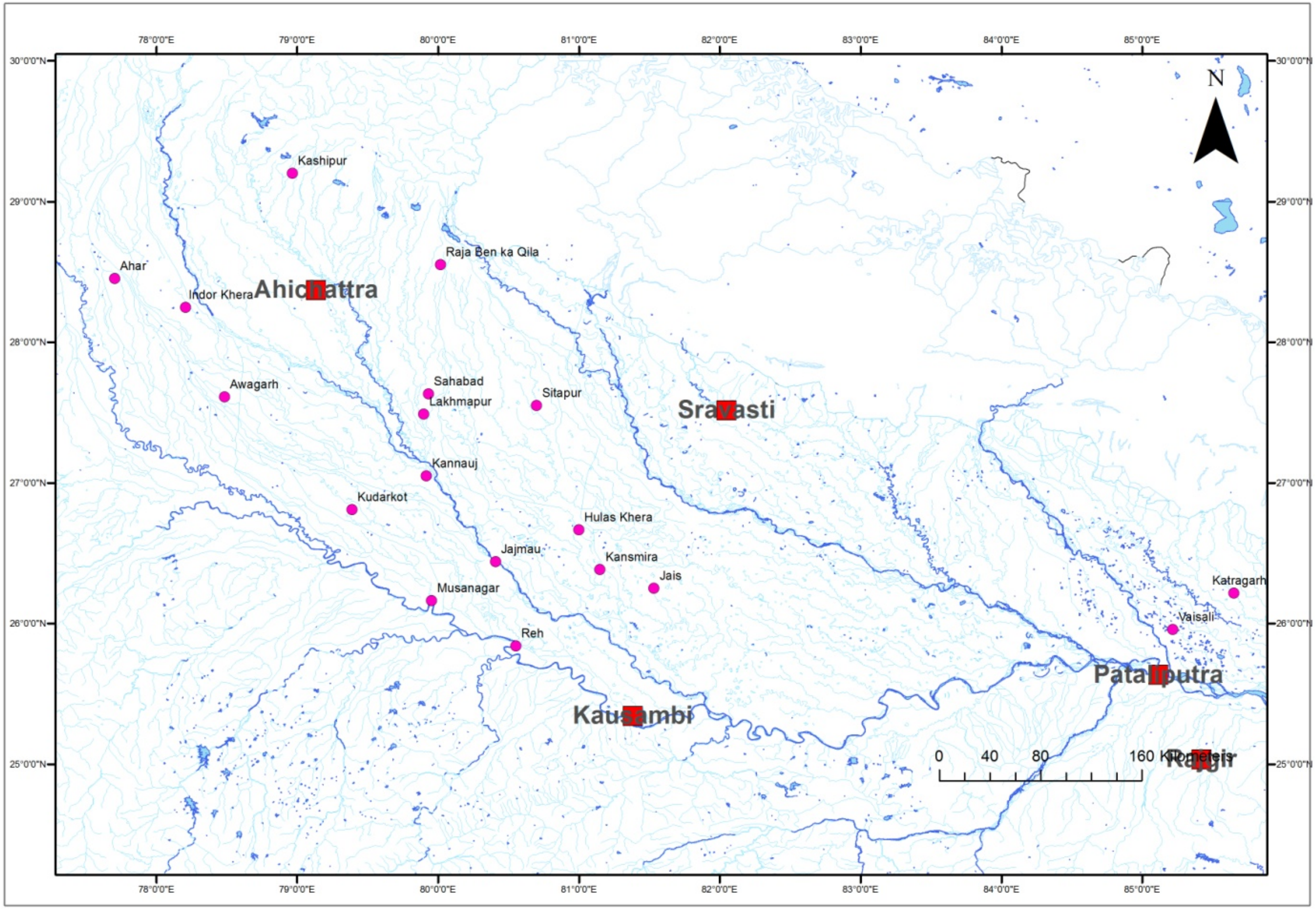


Figure 3-27 Map displaying the Metropolitan sites of the Ganga basin along with the known sites which are in the largest category and are well over 40 Ha in size

Hulas Khera presents us with a reminder that apart from rivers there are other possibilities in the Ganga basin. The Lucknow area is one which is marked by the presence of an almost marshy landscape in the vicinity of the Sai river and the interfluve landscape in that region is one which is densely populated with lakes, talabs, tals and bears a generally marshy appearance. The settlement geography of the region thus bears a significant correlation with such an environment and sites are frequently located on the banks of these talabs. Hulas Khera is known to have been settled at some point of time c 1000 BCE if not earlier and grows consistently till it emerges as a site of circa 35 hectares which defines and re-orders the landscape around it. The decade long excavations at the site, which have remained largely unpublished, documented a site of tremendous structural complexity with roads and house complexes being evident alongside an assemblage which matched the diversity and wealth of metropolitan assemblages and further displayed considerable accretions of objects of elite status including those in gold. What has less often been foregrounded about the site and this is based in the failure of the excavators to produce a single meaningful plan for the site, is that in the region ensconced between these many small and large lakes Hulas Khera, which is never fortified nor walled suggests a completely different vision of an urban site. At some point in the early centuries CE Hulas Khera sees a new vision redefining the site which sees the construction of a road which stretches across a marshy and lake zone and links and connects major regions of settlement. In its vision of water and city Hulas Khera represents a truly unique city of the early centuries CE and further and fuller documentation should bring out more complexities of the site.

I argue here that a major feature of this long period form 600 BCE to 300 CE is one which sees major and sustained growth in the hinterland. As has been documented and suggested by the data of the surveys by Lal, Erdosy and Kumar, early periods do not witness much growth of sites away from these locations at intersections of networks or under other exceptional circumstances. I argue here a process which has not been recognised often is that these centuries is that a numerous and large range of sites emerge which constitute a new tier in the settlement hierarchies across various sub regions and must have served as important local level centres. While the size range of 10 to 15 hectares has not often been considered very significant, I argue that evaluations based on universal criteria or those which have privileged the fact of the existence of major metropolitan sites have not been constructive in their attempts to understand ancient south Asian urbanism. In making my position clear here I do not argue for these sites to be Urban in any sense, but I do argue that their emergence is part of the larger Urban condition of society at the time and one which is an important marker of growth in this period and is a crucial and distinctive element of the settlement patterns of

the time. I do not further believe that without excavation and detailed surface work we can adequately characterise the functions and meanings of these sites and we would do well to not stereotype them as simply elements of agrarian growth and functionally related only to the countryside. As Figure 3-27 demonstrates there is an extensive distribution of such sites across discrete parts of the Ganga basin and I expect this category of site to considerably increase as surveys and the interest in site sizes increases. Chakrabarti's surveys have again been important in documenting the sizes of these sites and further investigation of their distribution and relation to other sites shall help considerably in understanding the social dimensions of these patterns of growth and the factors which they may have been crucially influenced by.

As a final category of the sites which I shall consider here constitute sites of a size range which significantly overlaps with the previous category in discussed but includes others which grow to be much larger. This category however has not faced any problems in being considered as definitely Urban and in fact has most often been considered as representative and in most aggregate discussions and lists even conflated with the metropolitan sites seamlessly. I argue here that this is because of one feature alone, the presence of fortifications. I argue that we need to recognize that there exists a consistent and extensive class of sites, which are often not more than 15 to 20 Hectares in size and are provided with fortifications which have perhaps in their often rectilinear form provided the basis for the generalized and uniform idea about the same. I believe that it is a major challenge in the upcoming years to document and understand these sites and come to a functional understanding of their roles, which indeed may be as diverse as the larger sites and perhaps even more complex.

I argue that the case of Bhita, whose fortified zone is only circa 15 Hectares but is surrounding by a steep and considerable brick fortification amply demonstrates the complexity of the site. The site which is a kilometre away from the Yamuna seems to have grown from a small site on the bank of the Yamuna which shows traces of having moved away. The region of Bhita itself and the areas outside the habitation show considerable surface assemblages, and in one case on the new bank of the Yamuna even what appears to be a site, at Deoriya. Adjacent to the village are residual hills of the Vindhyas in which have been carved a few rock cut caves and a series of Gupta and post-Gupta period. The immediate region also includes traces of major Buddhist site as a Gupta inscribed major sculpture is known from the village of Mankuwar, to which it appears to have been shifted in the early 20the century and stupa railing fragments are known in small but definite number from the immediate vicinity of Bhita itself. In the course of my preliminary surveys I also located a small early medieval shrine located on top of the residual protuberances of the Vindhyas. The extensive

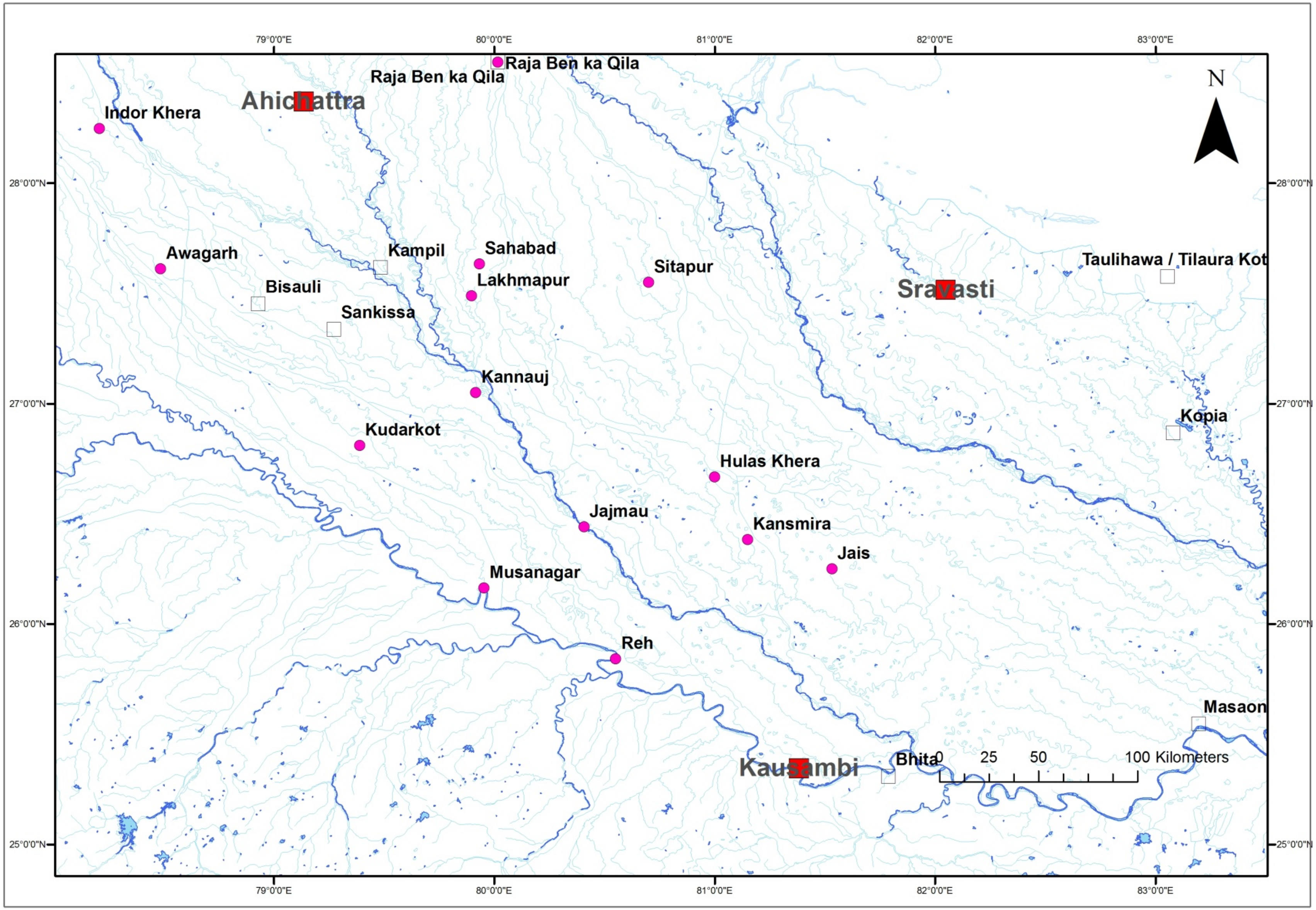


Figure 3-28 The Metropolitan sites of the central Ganga basin alongside the largest category of riparian sites as well as the fortified sites of a smaller size range in the region.

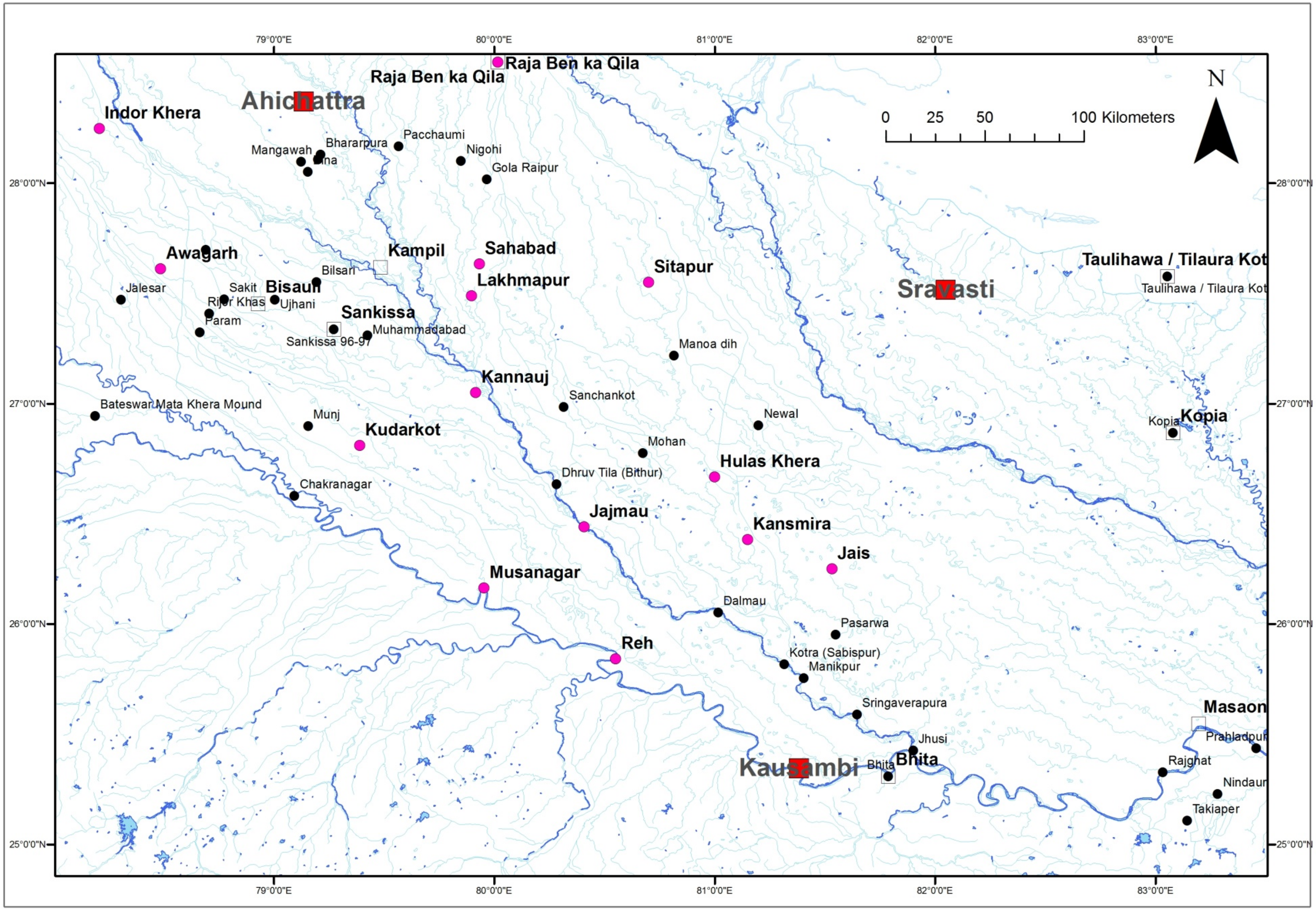


Figure 3-29 A map of the same region displaying all the large site categories which have been raised in this discussion. As is obvious the documentation is far from complete and is most explicit in the manner of how we know barely nothing about the hinterland of Sravasti. I argue here that a detailed study of these interconnections and the functional and social aspects of these landscapes are the best guide to questions of territoriality which are stake in understanding the political processes of the early historic.

excavations at Bhita have often led scholars to argue that early historic fortified cities were organised and controlled areas, and indeed Bhita presented many trends towards that. The complexes which line the road that enters the site from the excavated gateway or complex multi-roomed structures, which are large and spacious and also bear serious of small rooms on the side away from the road. They have alternatively been treated as domestic spaces and as the evidence for a marketplace by different commentators. Marshall, in a break from the usual patterns of un-contextualized reportage of artefacts suggested that his regular find of seals of certain individual merchants at these sites could be correlated and the structures taken as their houses. I argue here that there is no easy way to reduce the functional aspects of such a site to a small category such as administrative, economic or political. Bhita may have predominantly represented one or all of these in the landscape, in addition to having been a major social landmark and element in the sacred landscape. Bhita amply demonstrates that these sites may be very hard to define and while being definite economic centres may have been crucial in their local and regional landscapes for many other reasons as well.

I argue from the distribution of such sites, in relation to both the metropolitan sites and the other category of large 40 Hectare and larger sites that they may indeed have performed a very significant set of political roles as well. Bhita is almost conspicuous for the number of sealings and seals it has yielded alongside coin moulds, in numbers which almost parallel Kausambi despite the fact that the metropolitan site is 10 times the size of Bhita. I argue here that additionally sites like Kopia, which demonstrates a conspicuous presence as a glass manufacturing centre and others which are similar in size and form may actually be important elements even in the articulation and control of political networks. If we are to come to an understating of regions and provinces and of the maintenance of power and its own networks across a landscape these sites may indeed prove to be crucial. As a final argument though I stress that in my experience there are a number of sites, which bear no trace of fortification and are approximately in the same size range and that they too may bear similarly important roles and connections. I have argued thus here for 4 distinct classes of archaeological sites which are evident today in the data that we have for the archaeological landscapes of the Ganga basin. I defined these classes on the bases of size clusters above a general limit of 5 Hectares for village sites and on the basis of the trends of the data present additionally with reference to the presence or absence of any form of fortification. I have not argued for however the last two categories of sites in any particular form and indeed I expect more detailed work to throw up categories and define classes which are simply more relevant to their regions and the processes at work. My intention here was to clarify and organised the evidence for what has commonly been confused and homogenised as single phenomenon and I believe my categories have represented the

evidence well and provided for a good demonstration of the trends as they can be addressed at present. The next section shall now attempt to articulate my position on the entire process of Urbanisation and the theoretical dimensions of the transformations.

Statement on Urbanisation and its processes

I have argued and demonstrated above that once we recognize the indigenous patterns of complex and large sites we are taking our first steps towards the recognition of urban forms in the ancient Ganga basin. In many ways this a crucial argument which stresses the extensive discussions about the societies or previous eras in the Ganga basin and forms an evocative link which challenges us to break down the many discontinuities and disjunctures with which we have framed our understanding of the coming of the major cities of the Ganga basin. I have demonstrated that large riparian urban settlements, are a long-term significant aspect of the landscape and form the basis of later urban centres as well. I argue here that our ideas about the prelude to Urbanisation, of the growth of technological prerequisites and about colonization and settlement chronologies of the Ganga plain are all in dire need of revision and that we need to disinvest ourselves indeed of the many of the crucial fulcrum of the metanarrative to come to terms with the emergent trends of the long-term settlement of the Ganga basin. I argue that the debate over Urbanisation has thus been in many significant ways a construct of the metanarrative and its assumptions itself. The present section seeks to now place this understanding of the emergence of cities in a more abstracted statement and seeks to answer the infinite debates which have raged over the primacy of various factors by relocating the questions.

I begin here by arguing again that at a time at any point in the second millennium BCE or even at the date of 1000 BCE the Ganga basin is a diverse multicultural world criss-crossed and defined as much by the networks which run across it as it is by the congealed distributions of distinctive ceramics. I have demonstrated these patterns of cultures and linkages through an analysis of the assemblages and distributions in ceramics, metals and lithics. On these various trends I argue here that in terms of visualising this entire region it is best to frame it on these grounds as a large 'Interaction sphere' within which a range of integrative forces as well as those of localised identities are variously at work at different times. The sphere by the year 1000 BCE is clearly define by the presence of a range of hierarchical societies and this is a not a new process. This interaction sphere itself is transformed and trans-created into something of a completely different order in the course of the phase of the origin of the largest of the sites considered.

I understand the idea of the interaction sphere in the manner in which it has been formulated and used by Norman Yoffee who also provides an intellectual history of the concept in archaeological

literature. I find it useful and extremely apposite for the manner in which it provides breadth for diversity and common elements and binds them in a coherent theoretical form. Yoffee defines the interaction sphere in a manner which provides great insight not only for his region of interest, Mesopotamia, but also for the Ganga Basin. I reproduce it here: 'The interaction sphere concept, as formulated by Caldwell, describes the condition in which those otherwise politically autonomous societies were culturally connected on a regional basis. That is, the boundaries of local social systems could be identified by distinctive settlement patterns in specific ecological or geographic circumstances, the practice of appropriate subsistence techniques, and the maintenance and reproduction of historically determined cultural ways and associated material expressions. Nevertheless, the circulation of certain goods bounded these local systems within a large, regional or supra-regional area.' [281]

The tremendous and overwhelming economic expansion which pervades all aspects of life in this period is one which is premised upon the extension, elaboration and strengthening of the Interaction sphere on a whole range of related levels. I argue that at the largest of these sites, like Kausambi and others, the process of expansion may have been an extremely rapid one and one which is confined to a short period of two to three hundred years at a time which appear to be parallel to the mid NBPW period of expansion of networks and the elaboration of a major integrative phase. I argue here that in Interaction spheres like the Ganga Basin such massive changes and transformations 'happen' rapidly especially in the midst of and on the cusp of demographic explosions.[282] They are manifestations of processes which are larger than the designs or ideologies of any single social group and more complex than any phenomena which can be reduced to the single dimensions of human social behaviour which we divide and understand as economic or social or political. Thus the search for prime movers of factors is again a symptom of our yearning for a theory or origins and the security modern social sciences, especially those given to reductive socialisms, have found in a singularity of causes rather than a multiplicity of forces. These transformations impact upon almost all registers of social life, and in turn its own trajectories come to be structures and given form by definite processes which must have been the result of complex negotiations between different social groups between which roles, statuses and identities may have been radically redefined and manufactured afresh. The massive range of artefact classes, most prominent amongst which are the small terracotta images representing various figures important in

[281] N.Yoffee, *Myths of the Archaic State*, p.204

[282] Again I argue here that Yoffee eloquently describes what appears to have been a similar process: 'Within interaction spheres, cities crystallized, at some point, rapidly (in the language of complex adaptive systems) as phase transitions. By this term is meant the sharp transition from one state of being to another. For example, when one boils water, molecules become excited, and at 100 degrees Celsius, not 99 degrees, water turns to steam; one grain of sand added to an otherwise stable pile can cause an avalanche.'

the belief systems of the people of the Ganga basin are perhaps an important and suggestive marker of this process. There are definite regional forms and there are others which circulate far and wide but most importantly in none of the preceding cultures is there such importance or such a tradition of domestic and private use of images.

Having framed my understanding in such a manner I wish to now complicate the picture by stressing that owing to a lack of comprehensive dating programs there are major problems in the manner in which we can visualize the impact and chronology of these transformations. Reportage from almost all excavations relate to 500 year or longer blocks, although levels and more discrete units like floors are almost always regularly identified. The case of the dating of the NBPW is perhaps the best example as chronologies for one site are generalized to include all sites. Thus sites which have yielded dates c. 500 BCE or have no dates at all are now being argued to perhaps have had a few sherds of the ware as early as the earliest dates for the ware. If we are to understand the manner in which the processes which I have described above operate in different sectors of the Ganga basin, detailed chronologies and detailed work in all these regions must be done, otherwise we shall continue to homogenize trends which even with our qualified evidence today seem to bear discrete chronologies and manifest very particular moments of the manifestation of social change and new processes.

I shall conclude this statement with two further arguments. I make explicit the call here to disengage our notions of the urban process from the NBPW. Definitely the fine ware which emerges by this name is one which comes forth to definitely technologically and aesthetically surpass the whole range which had previously circulated in the Ganga basin. Yet outside of a very small zone in the Ganga-Yamuna doab and the middle Ganga valley the ware is consistently distributed but in very small amounts. To put it polemically, there is as much NBPW at Narhan in the Sarayupar as there is at Adam and Kaundinyapur in Vidarbha.[283] While undoubtedly the NBPW is a clear marker of elites and new forms of the marking of status and consumption patterns we have very little literature which contemplates what social implications its massive record of an integration into networks represents in its many different zones. I argue that it is as much a possibility quite often of the NBPW to represent local consumption by elites in different zones as it is for it being transported by diasporic populations who continue to choose to articulate their identities in this manner. Until we

[283] All these sites have yielded a single sherd. I cite Narhan particularly because even though other sites in the Sarayupar yielded higher quantities the extensive excavations at the site did not yield much NBPW even as the site grows in the period. Thus the distribution is not only a question of region and is a marker of much more complex distribution along social categories. Of course as is often cited, while amounts are limited in the Central Indian region, coastal sites as far away as Alangankulam in Tamil Nadu, at the mouth of the Vaigai River has apparently yielded extensive quantities of the ware.

move to a more contextual manner of reportage and of understanding sites all this, and other significant aspects of the urban process and culture shall remain at the level of speculation alone.

My final argument relates here to the manner in which we can hope to model political processes which accompany this and address their relative function and complexity. A first step which I have argued for above is an extension of the imagination and study of political societies for a period prior to the sacrosanct year of 600 BCE. My belief is that if we consider the patterns of settlement change over a regional scale and try to document as much as is possible about the growth of sites and their functions in the landscape across the entire region it shall be possible to address processes of local change in a very significant manner. For this however, survey methods and interests must change to a considerable degree and they must be interested in providing a dataset which is exhaustive in its examination of the areas it chooses to investigate or at least be communicative of the manner in which it represents that region. No such dataset exists for any part of the Ganga basin at present although it is possible that work in many regions where jeep surveys have documented a range of sites may be effectively built upon to prepare such data. I argue that it shall only then be possible to address the manner in which various site categories which were delineated and discussed above come into existence and how they structure life across the region and how they are controlled and refashioned in the quest of political power by various social groups.

XVI. Complexity and the measure of societies

As a final and related statement here I wish to stress certain aspects of my discussion of the Ganga basin. In my own analysis here I have relocated the discussion to a frame of interaction spheres and I have continued to argue for complexity. I have used the label complexity widely and variably, arguing that certain technologies, exchange systems and social processes are complex and part of this has been in the manner of my effort to redress their consignment and summary judgement. However I am aware that complexity itself is no category which can replace the pervasive socio-evolutionist categories of 'Chalcolithic', 'Neolithic' and the like. My emphasis on the long-term here has stressed the need to break down any idea of 'Neolithic societies' for the Ganga basin. Increasingly, and spurred on by evidence from the West Asian context archaeologists are understanding that the processes of animal and plant domestication are not marked by events like transformations, nor are they limited to the late Holocene. Increasingly there is talk of 'trajectories', which describe complex long-term histories of the exploitation and manipulation of faunal and floral resources and a commitment to explore the diversity and range of human-environmental relationships without tying them down to the imagined dimensions of human social evolution. I submit here that vast stretches of North India bear significant populations from the early and mid Holocene whose histories we know precious little at present and our imagining should be open to

the possibilities of many different patterns which may or may not relate to the revisionist typologies being presented from West Asia and China. Similarly I do not believe that the term Chalcolithic communicates anything useful to us anymore. Instead by pointing to the early traditions of fine wares, polished stone tools, bead making and early metallurgical traditions I have tried to relocate the evidence towards a discussion where we can envision early specialists and their wide regional and larger connections. I have stressed repeatedly the need to frame such knowledge within regional patterns of identification of societies and the manner in which their various communities have settled in habitations small and large. My own arguments have been that without such modelling and close attention to the patterns themselves we shall continue to generate myths about these societies rather than approximate the processes which structured their lives and provided limits on the possibilities in their worlds.

In my reading of theories which seek to explain the emergence of complex societies I perceive that we are all at crossroads which are difficult to move further beyond from. There is a global critique and retreat from the ideas of evolutionary ladder of social forms and a major concentration on the need to deconstruct and understand the elements with which our extant knowledge on ancient societies has come into being and the intellectual sources it rests upon. The revisionism itself have moved in complex lessons as the stress on comparative studies itself which were the motivation for cross-cultural studies of the Chiefdom, a critical step of the evolutionary ladder, were its very undoing and the diversity they documented being finally the ruin of the category itself.[284] Only recently, in this vacuum has discussion been significantly theoretically reoriented, by a powerful demonstration that some of the most crucial aspects of the debate lie in the manner in which we consider the social construction, circulation and constituents of power and its networks themselves, rather than how we imagine a typology of social forms.[285] In this manner it in indeed possible to not judge all complexes against absolute standards but understand differences and appreciate all articulations of social processes which construct community and draw boundaries and attempt to understand the societies we study and their elements before we seek to categorize them for our own 'ease'.

From the South Asian location these debates have always been at a distance, our archaeological tradition in India, has as I have argued here never accorded a voice to material culture beyond a lexicon which arose out of texts and a list of racial and ethnic categories constructed out of readings

[284] Timothy Earle, *Chiefdoms: Power, Economy, and Ideology* (Cambridge, Published by Cambridge University Press, 1993)
[285] Adam T. Smith *The Political Landscape: Constellations of Authority in Early Complex Polities*. (The University of California Press, Berkeley, 2003)

of ancient literatures. It has often been lamented that in terms of social evolutionism Indian archaeology is behind the times. While in terms of method and the grounds on which arguments have been made this is no doubt true but finally in the labels that have been in circulation and in their appellation there has perhaps been less difference. The term chiefdom is today as meaningless as the term Chalcolithic. They both stress a presence of a preform, of a type before and in praxis they have been used for societies which are complex but which we have not been comfortable to call states, in other words we have been unable to come to terms with the specific forms of complexity they represent.

The category of the state has for very long represented a process of becoming. In theoretical abstractions this is where things truly occur, and the structuralist epistemologies of understanding societies have over the course of the twentieth century presented a massive range of associations which are argued to have been associated with it and have been part of this fundamental transformation. I do not mean to question or to challenge these vast bodies of social theory instead I confess that there is much to be learnt from them. Instead here I argue that the idea of the state in ancient history has taken on very specific and rooted forms. Replete with a Childean vision of revolutions, and Marxian and more broadly structuralists ideas of history have created a historicism which has inquired into the ancient past in a manner which seek our definite origins, definite markers; indeed events upon which such transformatory occurrences can be pegged. Understood in such a manner the ancient state has become a metaphor for a search for origins, and in the South Asian context for a search for firm grounds for history proper to tread upon. The disinterest of the grand master narratives in almost all of the subject matter of the current discussion should be ample demonstration of this trend. This search for origins has been imbued with meanings which when being sourced from theoretical dimensions are posited at a level where they are unassailable, even by evidence. This has been the primary reason for my stress and my affiliation to providing discourses which emphasize the many dimensions of complexity in early society. The mainstream history operates with a divide and a fracture, and that is rooted in a reproduction of the trope of the 'Dark Age'. The theoretical apparatus of the idea of the origin of the state as a major marker, its association with the other elements of civilization (the state itself, cities, writing and trade) and the key construction of odd categories like protohistory have been devices in the manner in which this fractured history can operate and argue for definite origins and events. In all of this there is masked a major problem which is a crises as much of the category of the state as it has been in the manner in which ancient political systems in south Asia have been imagined.

Even the most recent and nuanced studies of the Harappan complex, whose integrative era is perhaps the most complex phenomenon in south Asian ancient history, have also come up against difficult formulations the most recent of which stresses its characterization as complexity without the state. I argue here for a recentering again of political imaginations, much in the manner I have argued for the manner in which we should study cities. Is there a globally recognisable state? Does it and must it have forms which should leap out from archaeological trenches in all contexts of the world. Over the course of the study of human history, there have been moments of clarity as well as episodes of confusion caused by cross-cultural studies. There are times I argue when regional forms and realities are more important. If I may summarize things as they stand, in manner which is not often done, South Asia has no state and no king until we can come to a period when we can read about them calling themselves that.

This is an intense problem and I choose here to draw attention to how the most considered re-examination of such problems, which has attempted to draw fruitfully upon cross-cultural comparisons has looked at the case of the Harappans: 'Certainly, Indus Valley city-states look different from Mesopotamian city-states. They were ruled differently and seem to have had different rules about how power was to be exhibited in them and, presumably, about how power was to be contested. Their development and collapse were also different from what they were in Mesopotamia'[286] This difference is key. I argue that the trials Indian archaeology has faced in even finding bonafide 'cheifdoms' has been rooted in similar ruptures between an assumed global type which can relate to all material cultures and order them into perfect social-evolutionary schemes. If further examples are necessary, the veritable pathological opinion of all megalithic societies as definitively primitive, despite all indicators, along social-evolutionary indices themselves (of monumental architecture for one) should be further demonstration of how we have failed to provide theoretical dimensions which are appropriate to the material culture under study.

In disputing myths about the archaic state, Yoffee argues that a central myth relates to an idea that they were precious entities and that there were only a few of them. This is a charming insight into how our modernist historicisms quest for origins has stressed certain ideas and events in the face of multitudes. I argue that this is true for polities, which should be left unchained to labels until we can examine them, in ancient South Asia. If I have argued consistently above for a need to re-examine the labels we use I argue here for a need to desist form similar exercises of pigeon-holing until we can build a demonstrable picture. That is not the case at present in the Ganga basin, where significant indicators exist but we are on thin and disputable grounds. Further, I argue even if there

[286] Norman Yoffee, *Myths of the Archaic State*, (2005, Cambridge University Press, Cambridge) on Possehl, p.229

is a need for labels can we actually use any without the implications and associations that all the terms which I have raised above are so clearly bedevilled with.

My position is not one of pessimism about the manner in which we understand societies and understand processes of change from the archaeological record or from any source category for the ancient past. I argue here that my preferred choice of lexicon, one which chose to describe aspects of distributions, which this entire exercise has been a study of is a very important tool. Episodes of regionalization, localisation, or integration are those which can describe distributions without necessarily being imbued in inescapable dimensions and discontents of socio-evolutionary theories. As a student of past societies I thus argue paradigms which label and categorize and stress the need for better description and for fuller characterizations.

XVII. Addenda: A brief review of the major problematic in the study of the period after the year 1 CE

A major part of the initial aims of this project of the atlas were trying to examine the range and diversity of the material cultures of the period after the NBPW in North India. In my quest to do so, I had initially designed the project in a manner in which I could take forth the format of the discussion as based principally upon Early Historic ceramics as to provide a common basis through a period which was otherwise marked by clearly common and shared cultures as evidenced by other historical sources. It is a measure of the disinterest of Indian archaeology in providing rigorous and complete documentations that ironically this massive period of expansion and one which sees possibly far greater trends in integration than ever before has almost no data alongside which one could evaluate this in terms of ceramics. This exercise had already become too large for me to design a consideration of early historic societies on any other basis than that of ceramics and any other artefact category for the early historic would have entailed a dissertation length study of its own across this large region. I note here with considerable surprise that even for the region I have considered while there are a number of divergences and regional cultures in earthenwares even through this period there are by no means sufficient publications to comprehend and compare these. In retrospect, especially for the reason that I had chosen to design a survey component to this study as well, that I was extremely fortunate to work at a site where one of the very few reports for ceramics of the period after the beginning of the common era exists.

I argue here that in the 1950's there was considerable interest in systematising archaeological cultures and understanding ceramic assemblages. As part of the general perception of the role of archaeology in historic societies documentations here have subsequently not been of as high a priority as in the investigation or prehistoric societies. I argue here that our knowledge of the post-

NBPW ceramic assemblages rests on two or three major reports which identified a range of typical forms which have since then either been replicated and ratified and that these do not constitute a full documentation of these assemblages. My reason for the second assertion stems from a massive undocumented diversity in further types and variants which I observed amidst ceramics of this period from Kausambi and have come to appreciate exists for almost all regions of the Ganga basin. Two major problems have been at the root of this problem. Indian archaeology has tended to characterize wares in terms of their general surface appearance: thus finished colour and decorational regimes have been a guide rather than the characterization of pastes, surface treatments and variations within these. The category of 'Early Historic red wares' in the Ganga basin thus poses a massive range of plain, slipped, burnished, rusticated and highly polished different wares which often relate to only very specific vessel categories. The greatest problem however is in the manner in which apart from a few marked types (the small incurved bowl and the series of bowl forms, the sprinkler in the red polished ware and a few stamped decoration types) there is a massive series of 'red wares' which succeed upon each other from the period of 300-200 BCE through to the year 1500 CE with very little established in terms of their differences. Additionally problems of erosion and light surface treatments further mean that quite often a red ware body sherd at a site is virtually from any point of time in the Common Era. Further some of the major reports have only contributed to the confusion, witness that the Atranjikhera report salutary for its rich documentation of the early periods is infamous for having not documented any early historic period at all. In fact all of this and disturbingly even a known medieval type are described as part of an extended series of NBPW associated wares. In such a state of affairs there is hardly any hope for a synthetic review.

This lack of specific markers has been the cause and effect of the second major problem, which has been the metanarrative's general belief that all cities undergo an extensive period of ruin, deurbanization and desertion --- summarised as Urban decay --- in the period preceding the rise of feudal or 'early medieval' systems. Under the shadow of this pronouncement the excavation of sites with much longer continuities proceeded with major assumptions about the chronology of the site. As I argue for the case of Kausambi, in addition to these ideas, a reliance of early archaeology upon the system of using coins as markers of dates of strata – which can be entirely unreliable – led to a situation where ceramics of circa the 14th to 16th centuries CE were believed to be those of the 4th to 7th centuries CE. This state of affairs has carried on because of a disinterest in medieval archaeology and this has resulted today in only the most general ideas about some of the most visible assemblages. As I argue for the case of Kausambi, it is possible to use two broad categories in the

generic globular pot and the cooking vessel of the Handi and generate a seriated sequence of varying rim forms which appear to relate and differ in what is a broad guide.

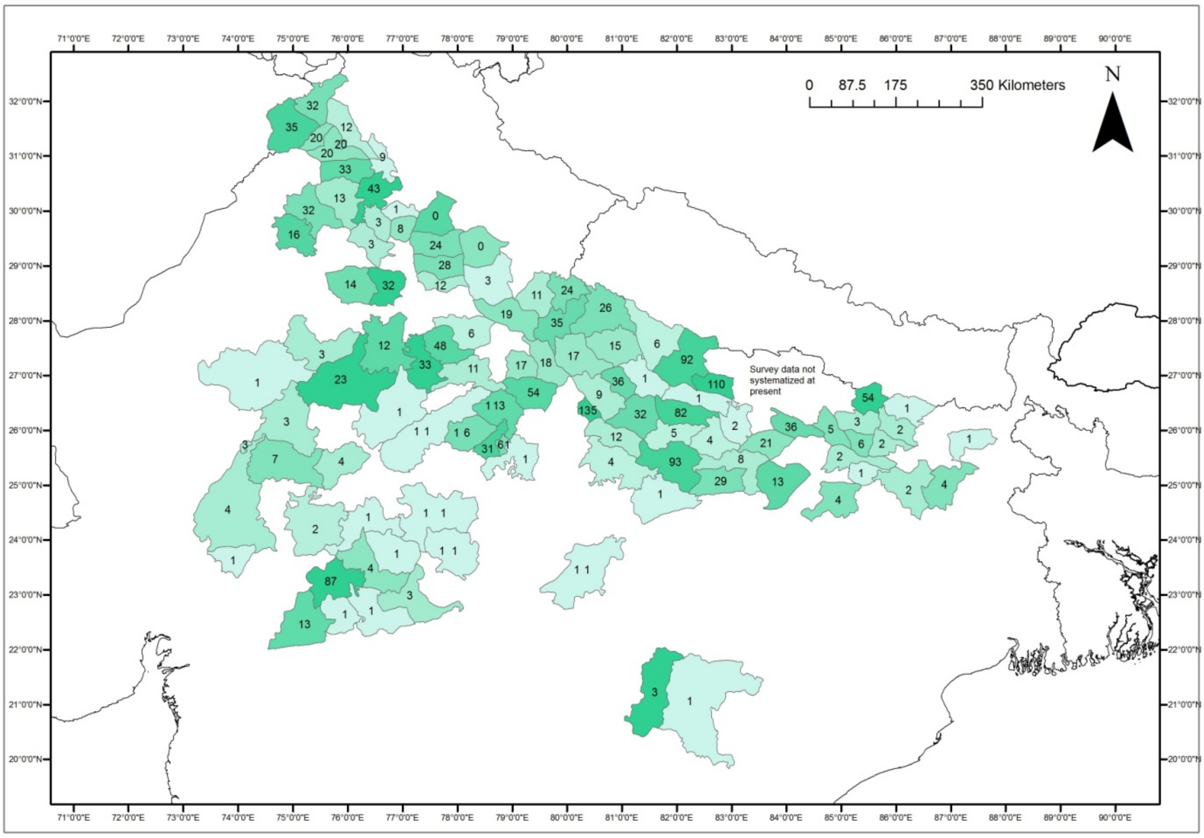


Figure 3-30 A district polygon plot of all known early historic sites. I present this map here to clearly demonstrate the inadequacy of this dataset and to stress the need of far more comprehensive survey work before we can begin to contemplate the settlement patterns and their dynamics.

This is a major problem and I seek to demonstrate its magnitude by referring here to two main aspects of the change. Through the period of the NBPW there is a growing accumulation of red ware forms which outnumber those known in previous periods in terms of vessel classes and come to provide distinctive forms such as the small incurved bowl and a tumbler which are clearly tablewares in a plain and unslipped red ware. It was a major achievement of the Hastinapura report to describe a medieval assemblage which also described a series of similar but different bowl forms characterised as the knife edged bowl forms. Since then there has arisen major confusion as broadly similar types have been discovered at almost all assemblages and the lack of clear reportage and publication, despite the clear and known knowledge of a seriation of forms, which provide clear links in terms of subtle changes in vessel size and more demonstrably in rim construction are in evidence. These are quick and expedient types, thrown of the hump in large numbers and appear to have been

mass produced. Every excavated site is known to have encountered large dumps of the same. What has been taken as fact and hardly ever raised is the associated recession of complex slipping and polishing techniques which were definitive previously of the table-wares. It is a marked transition in material cultures of the Ganga basin when a tradition of complex table wares comes to be redefined around plain and expedient types instead and one which has hitherto gone completely untheorised. Only very recently has Monica Smith attempted a characterisation of this process and has stressed that the transition does not imply degeneracy and decay but is instead associated with a massive expansion in all sectors of the economy and a shift in consumption aesthetics towards expedient tablewares.[287]

I agree with this characterisation and suggest that these preliminary arguments are timely and have initiated a new discussion on a matter of tremendous importance. However I argue that there are many more considerations which remain to be closely studied and I suggest only two possible trajectories here. Apart for a few and rare finds, the dish type comes to an end after a long history of use and this is a major transformations which needs consideration, especially as only the vast array of bowls replace it. I argue that this may be possible indicator of a shift in not only consumption styles but also perhaps in cuisine as well. A second and not too well evidenced trajectory is also known from the fact that discrete hoards of copper vessel sin very similar shapes are known to be distributed at sites in similar levels. Metals go to ground very rarely in the ganga basin and 'brass-cutters' have existed as a professional group to serve only these needs of refashioning metal objects when they become old. While it is still early I argue that finds such as those at Khariadih and Agiabir in the last decade may be representative elements of a mush wider transition to metals in the form of table wares amongst some parts of the Ganga basin.

I argue here however that the end of previous technologies and indeed the coming of new ones is a major transformation and needs detailed study. The only report from North India which even attempts to characterise these processes is that from Sonkh and has provided a detailed description of the premised arrival of new types, new forms of vessel finishing, in as diverse a range of practices as slurrying the base to preparing washed surface which are stamped with a miscellany of designs. It shall take a major and concerted effort on more than one assemblage to address the nature of these shifts and I shall draw attention here only to a few other trends, which have generally been swept away by the massive transformation.

[287] R.K. Mohanty, M.L. Smith, T. Matney, A. Donkin, and GA Greene, 'Archaeological Research at Sisupalgarh 2007: An early historical City in Orissa' *Puratattva*, No. 37, 2006-2007, p.142-155

The production of reduced wares is not a feature which comes to a sudden end, although its reduction is by any means quite dramatic. At Kausambi two deep bowl forms, of a type not produced earlier, are known from Kushan levels of the Ghoshita-arama and are suggestive of the fact that certain groups may have demanded specific types even in a later period. Plain gray ware bowls and even dishes are known to continue similarly at some sites, notably in the western complex, such as Ahichattra. Further the presence of extremely complex slipping and highly polish technologies known particularly in a thin and fine red ware, distinctive in its sprinkler type[288], suggest aspects of the transformation of technologies rather than their termination. I also feel the need here to mention that a cosmopolitan diversity in ceramic types may also be present in the broad range of red wares which are argued to have been derived from central Asian vessels of similar types. These arguments have generally suffered from a lack of clear demonstration and from a lack of comparative studies. One indicator which is however present is the dramatic arrival of glazed ware objects at sites with 'Kushan' affiliations; from Mathura and Sonkh, Sringaverapura and now Kausambi there are a small range of types in a technology thus far unknown which appear and are known from objects as diverse as a terracotta finial, and other fragments generally taken as a stand. My position thus is that there is no dearth of known diagnostic types, but we have done little to establish definitive characterization of the technology, range and diversity of the ceramics of the early historic period and later.

As a final point I raise the fact that there are marked regional traditions as well within the zone I have been concerned with and in the year 2008 we have an idea bout them which is so rudimentary that it is a major problems. The black and red wares which cease to be produced in the Ganga basin, continue in a known sequence of redefined wares in the region of Madhya Pradesh and have been excavated in a continuous sequence at more than one sites. The site of Malhar, near Bilaspur in Chhattisgarh in fact produces a range of slipped and highly polished Black and red wares which continue till at least 1300 CE.[289] I cite these examples not only to stress that there are regional traditions of technologies and ceramics which need to be investigated and understood but that we are in complete ignorance of the networks and patterns which may be present and active.

The most marked and problematic such distribution is that of the Rang Mahal sites, which were excavated in the 1950's and were documented then as being an extensive complex of a truly unique set of ceramics marked by fine red wares and extensive elaborate and painted designs in black. The

[288] The chronology, purpose and association of this enigmatic type are not clear, but it is evident that the vessel is a marker of massive integration networks and ranges more widely than any other type a trend which is qualified by the fact that its chronology may range as widely as from the 1st century CE to the 8th century.
[289] IAR 1974-75, p.21-22

pottery was fine and in the cultural terms known at the time was even thought to have been a Harappan complex until it was excavated. The excavations are known to have been published, but as they were published in non-Indian fora and the major publication is today to the best of my knowledge not available at any major institute in North India.[290] The situation is serious as a major complex is known to exist and the last surveys which documented its presence in a major way were in the 1970's and few field workers today recognize the ware. The Rang Mahal types present also perhaps the strongest known form of an alternative tradition to the supposed homogenized and similar worlds of the early historic and later ceramics of the Ganga basin and their distribution and the phenomena they represent needs to be come to terms with before we can comprehend the cultural landscape in any of its complexity. The ware was discovered at the type site in Bikaner, and a known complex is known from that region in Rajasthan, further there are complexes known in North Punjab and a small scattering of sites which are known to connect the regions. More impressively and with significant suggestions of further dimensions to the culture some sites have been reported from Gujarat and recently the question has arisen as to a possibility that there are major distributions in western Uttar Pradesh.

[290] Hanna Rydh, *Rang Mahal:* the Swedish Archeological Expedition to India, 1952 -1954. (1958,Lund)

Chapter 4 The Many Archaeologies of Kausambi

When Alexander Cunningham arrived at Allahabad in 1861, it was in the very first year of his epic two decade long surveys. As he made inquiries about his project of trying to find Kausambi, he was for once, met pleasantly with surprise. He met with a clerk in the Education department who informed him that yes, he knew of the location of the site and would happily direct him towards it. For Cunningham this was rare, in his project of following in the footsteps of the Chinese pilgrims there were far more often occasions of juggling distances and manipulating the modern names such as they could be cognizable as corruptions of the ancient ones. Instead, he was directed towards the site, which still bore the very easily recognizable truncated form of Kosam and then was surprised again: 'I had expected to find but a few small ruins' ..... but Cunningham had chanced upon what would one of the largest mounds in all his years of surveying the northern plains. Kausambi proved amenable to Cunningham's projects of historical geography and allowed him to base his efforts of trying to chart out the ancient landscape from one more fixed anchor. Further his interests in identifying the Buddhist monuments around Kausambi met with mixed success, he noted standing on the high and lofty fort walls that a village to the East stood upon a considerable height, in the general direction of where Hsuen tsang spoke of high stupa. Cunningham's enquiries there met with but a few torana fragments but he was satisfied and moved on. When he returned a few years later, his actions were similarly guided toward the identification of further elements of the Buddhist topography the monks and other Buddhist literature has described around the region, apart from the never-ending hunt for any further inscriptions. Cunningham's identification of a number of sites

in the hinterland, and his eloquent testimony of the size of the settlement outside the rampart walls, 'about half as much as inside' are invaluable records of the mid-nineteenth century condition of the site, as this part of the vast urban complex has suffered the most at the hands of modern agricultural expansion.

Given all of this, it seems remarkable that Vincent Smith's first and seemingly only contribution to the study of the site was to cast it away without seemingly ever having visited it[1]. The successors of Cunningham were never really convinced of the success of many of his identifications between sites and their literary counterpart and Smith found similar fault with the reality of Kausambi. It is a deeply ironical fact that Cunningham's highly successful project of historical geography imparted a trajectory of doubt and contestation to a historiography which became interested in disputation along the grounds of textual and philological minutiae rather than upon the consideration of the archaeological mass of data that Cunningham produced. The eventual consequence of this turn of events was that for the first half of the twentieth century most of the scholarly invested into the consideration of Kausambi was focussed upon proving or disproving its identity as that very site. N.N.Ghosh's monograph is indeed almost a full length effort towards the same end[2]. This anxiety to lay to rest such doubts can be seen to have continued until the early 1950's when epigraphic proof from excavations finally closed the matter. Today the question of identifying the sites as ancient Kausambi no longer troubles us and this effort to discuss and narrate the changing ways in which Kausambi has been understood and its massive ruins tackled and approached need not dwell upon it.

It is the aim of this chapter to consider the many archaeologies of Kausambi. By this it is meant that the site has been considered by a number of different people, in vastly different times with very different perspectives and paradigms. These varied considerations of the site have never really been considered together and further as bibliographic fate would have it many contributions are forgotten and not remembered at all. The purpose of this chapter is dual, to provide a discussion of these varied projects of understanding Kausambi and to try and serve as a bibliographic essay as well, collecting together as much of the information as possible.

[1] Smith, Vincent A, *Early history of India* (Oxford, Oxford U.P., 1924.)
[2] N.N.Ghosh Early History of Kauśambī from the sixth century B.C. to the eleventh century A.D., etc. [With maps.](([Allahabad Archaeological Society Series. no. 1.])Allahabad, 1935)

I. Cunningham's Kausambi

As with so many other sites, our first known record of an interest in the ancient ruins dates to a colonial record. Here, however, there is a duality in the record and as mentioned above Cunningham was met with B. Shiva Prasad, the clerk in the Education Department as mentioned above, who directed him towards the likely site of the ruins. His name is the only record we have of a prevailing and largely lost subculture of how intellectuals and members of the Indian educated classes of the nineteenth century related to the material traces from the past around them. It is important to stress the significance of this trace back to that form of intellectual activity as it is represents an oldest form of another connection which is to have a deep impact upon the site. This is the special place Kausambi comes to occupy in the imagination and cultural landscape of early and mid-twentieth century Allahabad. With the establishment of the Allahabad Municipal Museum in the 1930s we get a more connected record of the consequences and the specifics of this relationship. The decades from the 1920s till 1950 saw the rise of popular antiquarianism amongst the intelligentsia and elites of Allahabad, and as the cultural space of the high colonial era afforded institutions and forums represent that much of this came to focus upon Kausambi, a site which was claimed as their own local heritage and as embodying the greatness of the region itself. Early attention at the site was focussed largely upon the removal from the site to the newly founded museum or for personal collections of the most conspicuous and obvious of collectibles – the density of which at the site only fuelled such interests in the site. Remarkably, a massive number of large stone sculptures as well as terracottas , coins, and other small objects, often procured from villagers formed the core of the collections both personal and those made public. In the course of the 1940s with the founding of the Uttar Pradesh Historical society another order of engagement came about with more structured and formal articles, mostly on terracottas and coins being written in the Journal of the society. Prior to this and alongside these more amateur archaeologists a series of professionals visited and excavated the site in the pre-Independence era and the next section shall try and engage with the limits and the particulars of their archaeology.[3]

Cunningham's own engagement with the site merits further discussion for a number of reasons. His maps are, as for so many other sites, essential points of departure. For the purpose of this study and its survey component, they provided essential guides to a consideration of the site and how it has changed. Cunningham's cartography extended only to some selected aspects of the hinterland but

[3] S.C. Kala *Terracottas in the Allahabad Museum* (Delhi, Abhinav Publications, 2003: Reprint) and many small articles were published in the *Journal of the Numismatic Society of India* and the *Journal of the Uttar Pradesh Historical Society* in the course of the 1940s through 1960s

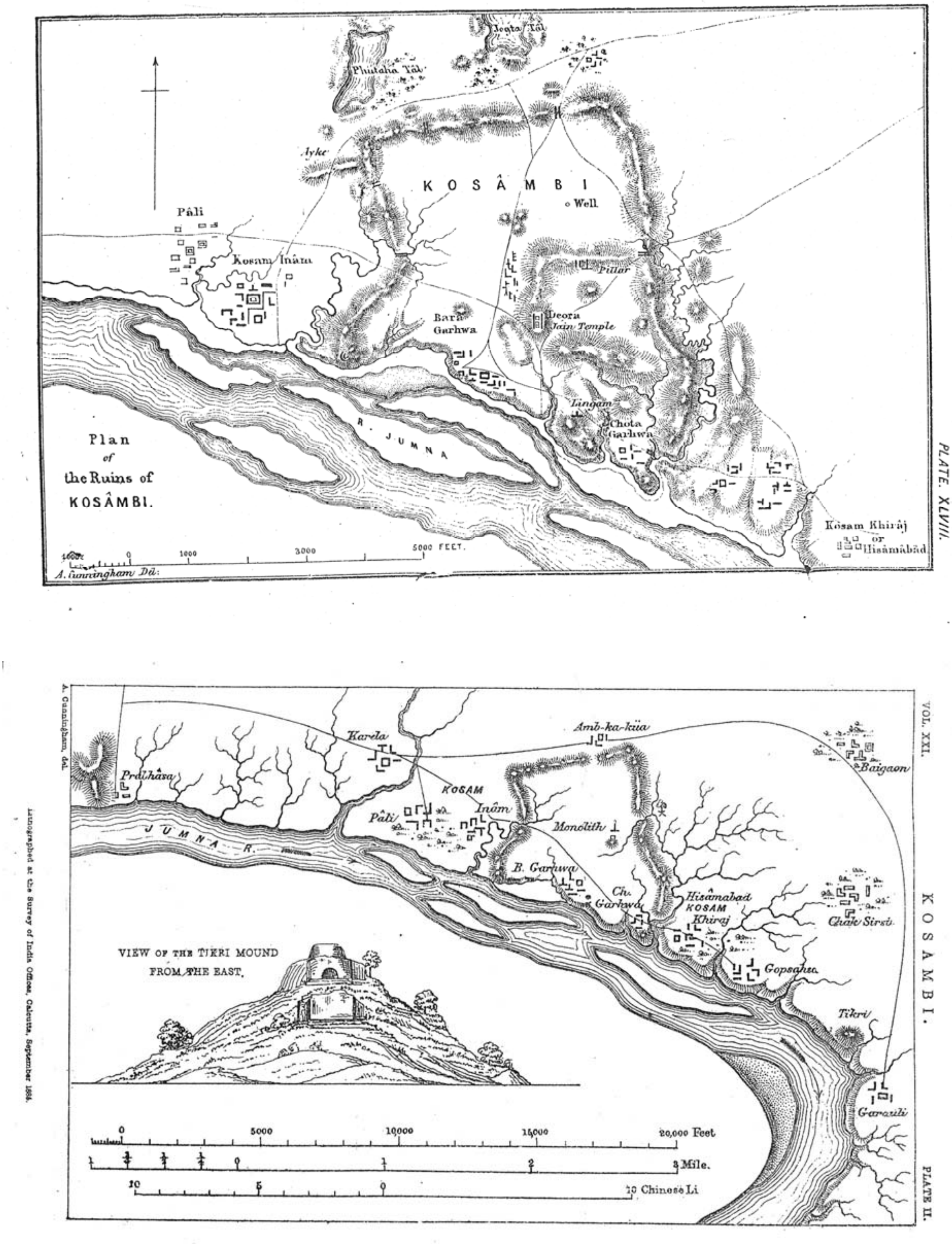


Figure 1 Cunningham's map of Kausambi and the surrounding regions produced on his two visits to Kausambi. The mound of Tikuri as described in the second map has completely disappeared as the Yamuna has incised away that region on the curve of the meander. Kausambi just a few kilometres shy of that area has witnessed only minor erosion in comparison

his prose about the massive nature of settlement outside the walls remains an early and invaluable comment upon this vital component of the archaeology of the site. Further, Cunningham's documentation of the status of both the river and of certain sites on the river bank has proved to be invaluable, as an index for without it the survey would not have been able to establish the massive nature of fluvial change that seems to have occurred in certain sectors of the Kausambi area since the 1960's. Further Cunningham himself was sensitive to the possibilities of such change and made a series of uncharacteristically convoluted speculations about the riverfront erosion of parts of the site itself.

Cunningham's archaeology itself was, as with so many other sites, brief but incisive and effective in documenting a whole range of diverse evidences. Cunningham's focus on Buddhist sculptures was notable and in consonance with his key interests; to this end he documented and recorded a number of torana fragments and established the key presence of the 'Asokan' pillar at the site. Cunningham's brief and quick and ready method of excavation has been difficult to place back on to most of his sites and even at Kausambi we can only provide a broad area and sector rather than a very precise location. Nonetheless, Cunningham documented a cache of Jain sculptures, seemingly deliberately buried and all dateable to the 11th and 12th centuries. Additionally by documenting a small series of Gupta and broadly similar period Brahmanical sculptures, two of which were inscribed, Cunningham contributed to the establishment of some form of a cultural chronology at the site. Additionally, Cunningham brought to the site his massive numismatic knowledge and pointed out the vast span of time over which a seemingly continuous sequence was available. Cunningham noted the beginning of a series with cast copper and silver punch marked coins and ending with Akbar. Even from his basic and preliminary collections he then went on to point out the significance of the group of coins all bearing name of rulers ending with Magha.

Cunningham returned to the site twice and made efforts to organize his ideas about the hinterland and its place in the landscape, based again primarily upon what he made of legends about the site narrated by the Chinese pilgrims. Thus he visited and established the sites of Tikri and made the first visit to Pabhosa, the structural mountain like residual hill 4 kilometres to the west of Kausambi and upstream on the Yamuna. Cunningham's work here is significant because he proved that the sites are linked in sacred landscapes within which a Jain tradition emerges with clarity. Cunningham also documented the fact that there were extensive quarries at the hill at Pabhosa, both of a medieval and an earlier date as evidenced by the presence of early quarry marks and more specifically graffitos in scripts of the 3rd 4th century CE and later. As a surveyor who over his years covered almost all sectors of North India, his disappointment upon climbing the ramparts and looking into

the interior of the site is noteworthy. 'I had hope to find the remains of monuments but here there are none...'. It is equally important to witness his admission that '[I] have made some excavations; but my chief discoveries have been in the people's houses'[4]. Cunningham himself was thus grappling with what is an important part of the site of the Kausambi: that is has never really been abandoned, and in its present form and presumably earlier times as well, the inhabitants daily lives and needs have impacted constantly the archaeology of the site in manifold ways.

After Cunningham, Fuhrer seems to have been the next visitor to the site and wrote about have made some small diggings in the quest of coins. Fuhrer's visit was notably brief and was primarily en route to Pabhosa where he documented a series of early inscriptions within the Jain caves[5]. D. R. Sahni's visit to Kausambi in the winter of 1917-18 seems to have been the next phase of major documented inquiry into the site. Sahni appears to have excavated a trench near the Asokan pillar and further acquired a number of inscription bearing stones as well as sculptures which he subsequently published. Again the thrust is mostly art-historical and in a weak sense thus antiquarian inasmuch as engagement with the large and known site is limited to the project of retrieving great and fine specimens of ancient pasts. N.G. Majumdar came to Kausambi in 1938-39 and brought with him a distinctive and different approach. Majumdar selected an area adjacent to Sahni's at the Pillar and excavated it to some depth. He also seems to have launched a major project of exploring the outlying mounds as he located new ones, unmentioned by any of the previous visitors and excavated at least one of them. Majumdar was one of the few archaeologists in the 1930s who was engaged with working outside the Harappan or Taxila circuits and had begun to evolve his own sense of what an archaeological excavation and project should be about. Sadly, his demise, at the hands of robbers at his tent in camp in the Sindh later in 1939 prevented a full publication of the find from this excavation at Kausambi. The epigraphs which he had located and forwarded have since been published in the *Epigraphica Indica* series and in the 1950's the most remarkable find of a large hoard of bent-bar coinages, the only one known outside of the Taxila region was published in the Journal of the Numismatic Society of India.

Amidst all of this fieldwork, Kausambi also came to be implicated within a different project commissioned by the Archaeological Survey of India. At some point of time in the 1930's it was desired that all the major references to three of the large cities of Sravasti, Rajagriha, Ahichattra and

[4] Cunningham, Alexander and Archaeological Survey of India. (1972, Original Publication 1871), *Four reports made during the years, 1862-63-64-65* (Delhi,: Indological Book House) 2 v.
[5] Fuhrer, 'Pabhosa Inscriptions' and 'Further Pabhosa Inscriptions' both in EI, Vol. XI, pp. 240 – 244

Kausambi[6] should be compiled and brought together for the ease of reference. The scholar commissioned for this task was B.C. Law, whose other works prominently show an ability to piece together anecdotal references and textual fragments form varied texts at its very best. The resultant volume, while uncritical in how it relates to the archaeology and further, even to the history of the site, is a valuable compilation of the major textual references and legends about the site.

Thus, by the time Independence came about a wide amount of published data was in circulation about Kausambi. The main thrust of this information was art historical and epigraphical, as well as being numismatic and focused upon a study of the terracottas the site had produced. In a sense all of this was characteristic of the largely 'antiquarian' approach that persisted at the time, valorising individual artefacts rather than their context within the site or its chronology. Nonetheless, a significant and substantive contribution had been made towards establishing the preliminaries of the site and its immediate hinterland and it set the stage for the future.

II. The First Excavation by the Allahabad University: 1949 – 1950

The archaeological investigations by the Allahabad University at Kausambi are remarkable for many reasons: they begin at a time, soon after Independence, when no other university was able to mount such an exercise. They were prolonged and detailed projects and continued for a length of time far beyond that invested in perhaps any other site in post-Independence India by any agency. G.R. Sharma's monumental efforts in getting this massive underway have often been acknowledged but a discussion of what he brought from Wheeler's camp at Taxila back to Kausambi and his own methodological practices have hardly ever been contemplated. The excavations at Kausambi are notable also for having produced two monograph based reports, which are the basic and foundational texts for the study of the site and the region.[7] The excavations at Kausambi were a seminal part of the huge burgeoning of new evidence and new perspectives which emerged in the course of the 1950s and is well known some of the interpretations offered were met with considerable opposition. It is the aim here to provide a narrative of the excavations and their

[6] B.C.Law, *Kausambi in Ancient Literature*, *Memoirs of the Archaeological Survey of India 60* (1939, Archaeological Survey of India, Delhi)

[7] Sharma, G. R. (1960), *Excavations at Kausambi (1957-59) The defences and the Syenaciti of the Purusamedha* (Allahabad: [Department of Ancient History, Culture & Archaeology) xx, 225 p. And G.R. Sharma (1969), *Excavations at Kausambi, 1949-50* (Memoirs of the Archaeological Survey of India ;; Delhi,: Manager of Publications) xxiii, 202 p. As the discussion shall above narrate they bear a complicated relationship of actual chronology of fieldwork and publication dates.

reception. This is being done for a number of reasons, Firstly, the work of the Allahabad University at Kausambi far exceeds what is contained in the two reports and has often not been taken into account when the site is referred to. Apart from thus collecting together all information on Kausambi in one place, an attempt is made to show here that many of the arguments that were put forth, were born out of the archaeological climate of the early 1950s and need to be situated in that context and only then addressed from today's standpoint. As this section shall try and argue there is much that can be learnt about the manner in which material cultures have been understood and the problems they have posed for changing understandings of Indian history from the example of Kausambi.

In the winter of 1949-50 the Allahabad University laid three large 'cuttings' near the area of the Asokan pillar, adjacent to those exposed by N.C. Majumdar and extending that area further towards the South and towards the West. The excavation was carried out on a method that replicated Wheeler's systems on many levels. The trenches were excavated in layers which were meticulously recorded in sections and site notebooks were specially developed and printed in mass to facilitate the quick drawing of the emerging section after every such spit was removed.

The major thrust of the interpretation of the first report is the development of a culture sequence on the basis of Wheeler's methods.[8] There is the prominent publication of sections of key trenches and also of a simplified chart of strata and structural phases upon which all further references to context are made. Interestingly enough, there is an equal emphasis on the publication of plans for these areas and these include the superimposed depiction of the structures of various layers and their changing relation to the seemingly more or less permanent alignment of the road which led to the Asokan pillar. From the early phases there was little by way of discerned architecture reported, but for the early historic, a number of complexes, which have traditionally been interpreted as domestic were revealed. In a tradition that follows upon John Marshall's excavations at Bhita these houses were interpreted as possibly those of traders and were in two cases even referred to as the 'House of Jarayadeva' and the 'House of Dutaka' after the name inscribed upon seals which were found within the confines of these.[9]

The chronology which was built up in these first two seasons was one of the most significant steps in the archaeology of Kausambi. As the report itself notes, the main indices used were the evidence of seals and coins, both being interpreted in the manner that the level of their find could easily be taken as the age of their use-life. This is a practice which has been more than common and persists

[8] G.R. Sharma (1969), *Excavations at Kausambi, 1949-50* (Memoirs of the Archaeological Survey of India ;; Delhi,: Manager of Publications)
[9] cf. John Marshall, 'Excavations at Bhita', *Annual Report-Archaeological Survey of India*, 1911-12

till today despite the obvious problems when dealing with small objects such as coins and seals which are prone to post-depositional disturbance and more significantly, have the potential, especially in the case of the singular and stray finds of coins, to be carried far out of their original timeframe. The quest for delineating a full sequence of cultures for the site had important implications and this was carried through to its 'natural end' by digging certain areas to a depth which exceeded 27 feet or, where such was the case, till the natural soil had been definitively encountered. This sequence was significantly revisited when the excavations in other areas revealed a deposit which seemed to precede that of the painted gray ware that was found in these trenches. The significance of this chronology and the manner in which it was constructed is most evident in the manner in which it structured and informed the pottery analysis that was made for the site.

The pottery from each spit or dig was subjected to an elaborate program of cleaning, sorting and a number of diagnostics were selected upon which their entire context in the trench and level, with reference to a system of feet along the two axes of the trench and stratigraphic unit. This massive project of writing all of this information onto every sherd selected is an act of tremendous wisdom in preserving the context for posterity but is one which understandably involves a massive amount of labour. This is a system which was instituted by Wheeler at Taxila and continued at Brahmagiri and other excavations and was also put into practice at Hastinapura but has by and large been discontinued today. In contrast to many other excavations a large detailed and monumental ceramics report which till today serves as one of the major documentations of the middle Ganga plains was prepared on the basis of these ceramics.

There are a number of factors which need to be acknowledged about the context in which this report was produced. At the time when these materials were being processed and this report prepared, i.e the years from 1950 to 1954 (which is when the report was submitted to the Archaeological Survey of India for publication within the Memoirs of the ASI series) there were very few ceramic reports of any detail actually available for the region. The touchstone amongst all of these was the results from Ahichattra, published in *Ancient India*, Volume 1 in 1945[10]. As important and as epochal as the work of A.Ghosh and K.C. Panigrahi was, it must be stated that the report published only the major and most distinctive types and provided the first full and clear description of the types of ceramics that could be expected to be used as markers of periods and were distinctive to those ages alone. Their work, as was understandable under the circumstances and time available was not one which intended to publish or even describe the whole range of wares available at each level or period. This is a trend which has dominated most projects of ceramic

[10] A. Ghosh and K.C. Panigrahi, 'Pottery from Ahichattra' *Ancient India*, 1

analysis and was the case with the other major ceramic reports which were available at the time for comparative study such as those from Rajgir, Tripuri and Rupar, the only major exception being that of the freshly published evidence from Hastinapura.[11] That the ceramics report provided a major contribution to the study of ceramics in the Ganga valley would be to state the obvious. It remains one of the best sources for understanding the associated wares of the NBPW period amongst it other considerable merits of publishing a huge number of forms as well as their variants when they occurred in large enough frequencies to merit discussion.

Table 1 A Statistical tabulation, with an emphasis on the categories used and the periodization employed, of the ceramics described in the first report from Kausambi, *Excavations at Kausambi 1949-50, MASI. No. 74*

Ceramic	**Period**	**Floor levels/ Structural periods**	**Types identified**	**Specifics**				
Gray Ware	I	27 to 24	One Bowl type One Dish type					
NBPW	II	16 to 9 PS I to V SP IA,IB, II	58 types in total	**Bowls**	Deep	Shallow	Large	**Total**
					11	10	1	22
				Dish	Large	'Dish'[12]	Min.	
					3	19	2	24
				Vase	'Vase'	Small	Min.	
					1	1	1	3
				Handi	3			3
				Min Basin	1			1
				Lid	2			2
The NBP associated Gray Ware	II	--	46 types in total	**Bowls**	'Bowls'	Deep	Min	Total
					10	3	1	14
				Dish	'Dish'	Deep		
					22	2		24
				Basin	2			2
				Handi	3			3
				Vase	3			3
The NBP associate Red Ware	II	--	106 Types	**Bowl**	Deep	'bowl'	Small/Min	Total
					1	11	1 / 1	14
				Dish	'Dish'	Shallow		
					3	4		7
				Basin	7			7
				Vase	'Vase'	Small	Min.	
					37	1	6	44

[11] B.B. Lal, 'Excavation at Hastinapura and other explorations in the Upper Ganga and Satluj Basins 1950-52: new light on the dark age between the end of the Harappa culture and the early historical period' *Ancient India*, Nos. 10-11, 1954-55:5-151

[12] Categories within quotation marks are meant to represent the lack of any further details or qualifiers.

				Jar	18			18
				Lid	3			3
				Tumbler	4			4
				Stand	1			1
Later Wares : The Plain Red Wares	III	8 to 1 SP VIII to SP III	217 types	Bowl	Bowl	Min		Total
					21	3		24
				Dish	11			11
				Basin	11			11
				Handi	10			10
				Vases	'Vases'	Spouted		
					129	10		139
				Jar	4			4
				Lid	9			9
				Goblet	3			3
				Stand	Normal/Ring	Hollow		6
					1 / 4	1		
				Incense Burner	1			1
Decorated pottery	III		30 designs					
Spouts	III		20					
White coloured pottery	III		3 types					

The major structuring idea of the report lies in the chronology which was described above, and which is significantly tripartite. The archaeological span of the trenches and as thus generalized to the site consists of three large epochs, the definitive NBPW phase itself and those prior to and after it. These three broad periods were based primarily upon the evidence of the coins which suggested that the site was deserted or 'came to an end' after the 5th or 6th century CE. While this was subsequently revised and raised to circa 8th or 7th century it is something which has had deep consequences for the manner in which the site was understood. It is important to note here that while previously it had been suggested, most notably by Cunningham through sculptural and numismatic evidence that the site continued till Akbar's time, the Asokan pillar barely 30 metres away from the trenches under discussion also bore an inscription of jewellers of the Mughal period. Yet, the evaluation of these trenches proceeded on the basis of the 'material word', or on the basis of inscribed artefacts such as the evidence of coins and seals, a method which Wheeler had endorsed strongly as a good chronological tool, albeit in different contexts. As the discussion of materials form the survey shall demonstrate in Chapter 5 the surface archaeology of Kausambi can yield significant ways of redressing this problem and re-ordering the sequence. It is important to

note at this time though that the picture of the post NBPW period that these reports produced were important elements in the manner in which the period came to be understood by both archaeologists and historians. The issue of post-NBPW red Wares all being essentially the same is one which has haunted the archaeology of the Ganga plains for quite some time and continues to do so as we do not still have any clear and definitive statements on medieval red wares and their diagnostic types, shapes or typical technologies of slips and firing which could help identify them. It is thus entirely understandable that in the early 1950s when all other evidence pointed in another direction the evidence of a considerable diversity and succession of different wares within the category was overlooked at the time.[13]

The main import for historians has been the idea that Urban decay in the early medieval period was a major and dominating socio-economic dynamic. None better than R.S Sharma have rallied to stress the importance of this trend which provides the evidential fulcrum for larger theories about the early medieval and its possible feudal order.[14] This idea has persisted in what could be called a vacuum of evidence, as a perusal of Sharma's main arguments on archaeological grounds whittle down to his personal observations of the 'lack of major structures' and the 'use of brickbats' at such levels at many sites. It is argued here that the medieval archaeology of most of north India is a largely unconsidered episode and that we need to comprehend many of its basic parameters in the field before such arguments can even be advanced, and further evidence and arguments along these lines are presented in the next chapter.

On the count of interpretation is it noteworthy that the initial report follows upon contemporary discourses in the archaeological literature of the time. The Painted Gray Ware is understood as the record of the earliest phase of expansion of the Aryans into the central Gangetic Valley. The subsequent phase of the NBPW is seen to represent the 'tendencies which were revolutionising the politics and religion of the region in about the 6th century BCE'. The coarse associated wares of the NBPW as compared with the sites of Ahichattra, Ropar and others 'demonstrate the fundamental cultural unity of northern India'. Subsequent to this, it is noted that such comparisons cease for a period which suggested a brief period of decentralization, at the end of which they are resumed again. This early attempt at relating ceramics to periods of socio-economic integration is one which is also complemented by another discourse: one in which a major element of cultural change and other elements is related to a Saka-Kushan phase.

[13] Dr. B B Misra, who held the post of Curator of the Prof. G.R. Sharma Memorial Museum for a long tenure had initiated and conducted a massive project of classification and analysis of the pottery of Kausambi. This has remained unfinished and unpublished but it was a monumental and unique effort and shall be subsequently discussed in the next chapter.

[14] R.S. Sharma, *Urban decay in India, c. 300-c. 1000* (New Delhi : Munshiram Manoharlal Publishers, 1987)

A recurrent theme in the interpretation of evidence has been the theme of what G.R. Sharma and others refer to as the foreign element. This is an important aspect of how the site is understood and the evidence form later inscriptions and elsewhere actually led G.R Sharma to propose a major invasion and pitched battle from across the fortifications. The markers of these intrusive elements are seen in the major change in the ceramic industry and in what was coming to be called Kusana pottery at the time: especially the 'Sprinkler type' and the distinctive accompanying bowl and lid types. The most manifest form of this manner of interpretation came in the treatment of terracotta's where the major change in types and forms and decorations in these periods was suggested to be related to a similar episode of cultural change. It has been the effort of this section to review the manner in which the sites and its material culture were understood in detail for the first excavation here so that the later excavation may be put into perspective.

III. The further excavations by the Allahabad University: The Ghoshita-arama, Eastern Defences and the Syena-chiti

In 1952 the Kausambi expedition of the Allahabad University returned to the site and instituted a long series of excavations which would continue for the next thirteen years. The first site they chose was in the south-eastern corner of the fortified area and to the general acclaim of the community of Indian archaeology led to the discovery and excavation of a major Buddhist complex. The Ghoshita-arama came to be securely identified with the discovery of monastic seals, votive inscriptions and an incense lamp all of which contained what was known to have been the name of a monastery built by a merchant at the site from legends in early Pali texts. The Ghoshita-arama was excavated over four or five years ranging from 1954 through till 1958 and revealed an extensive complex where the configuration of the sacred space changed a number of times. Unfortunately the details of this entire excavated complex were never published. The first major epigraphic discovery was edited by A.Ghosh.[15] The summary of the excavations and the major discoveries each year appeared in the respective issues of the *IAR*.[16] The subsequent epigraphs found were edited and published by J.S. Negi[17] and then also considered by G.R. Sharma in a subsequent essay on the Kusana phase at Kausambi.[18] The unique and celebrated find of the incense lamp was subsequently adopted the

[15] *Epigraphica Indica*, vol. XXXIV, pp.14 – 16, Edited by A.Ghosh

[16] Only annual summaries in *Indian Archaeology – A Review* and a 3-page report in the *Annual Bibliography of Indian Archaeology*, published from the Kern Institute, Leiden are all that are available

[17]

[18] Sharma, G. R. and University of Allahabad. Dept. of Ancient History Culture and Archaeology. (1998), *Kusana studies : papers presented to the International Conference on the Archaeology, History and Arts of the People*

Allahabad University as their emblem for the publication series which was instituted to cover the archaeological publications of the Department of Ancient Indian history and Culture. Most recently, however, a full length study of the varied and diverse sculptural fragments which were found at the site were studied at the Prof. G.R. Sharma memorial Museum and a catalogue and a consideration of their evidence was provided by Aruna Tripathi.[19] Tripathi's volume is to date the most comprehensive and useful volume available for the site and it must be noted that efforts are currently on to produce a report on the basis of the mass of curated materials from the holdings of the same Museum.

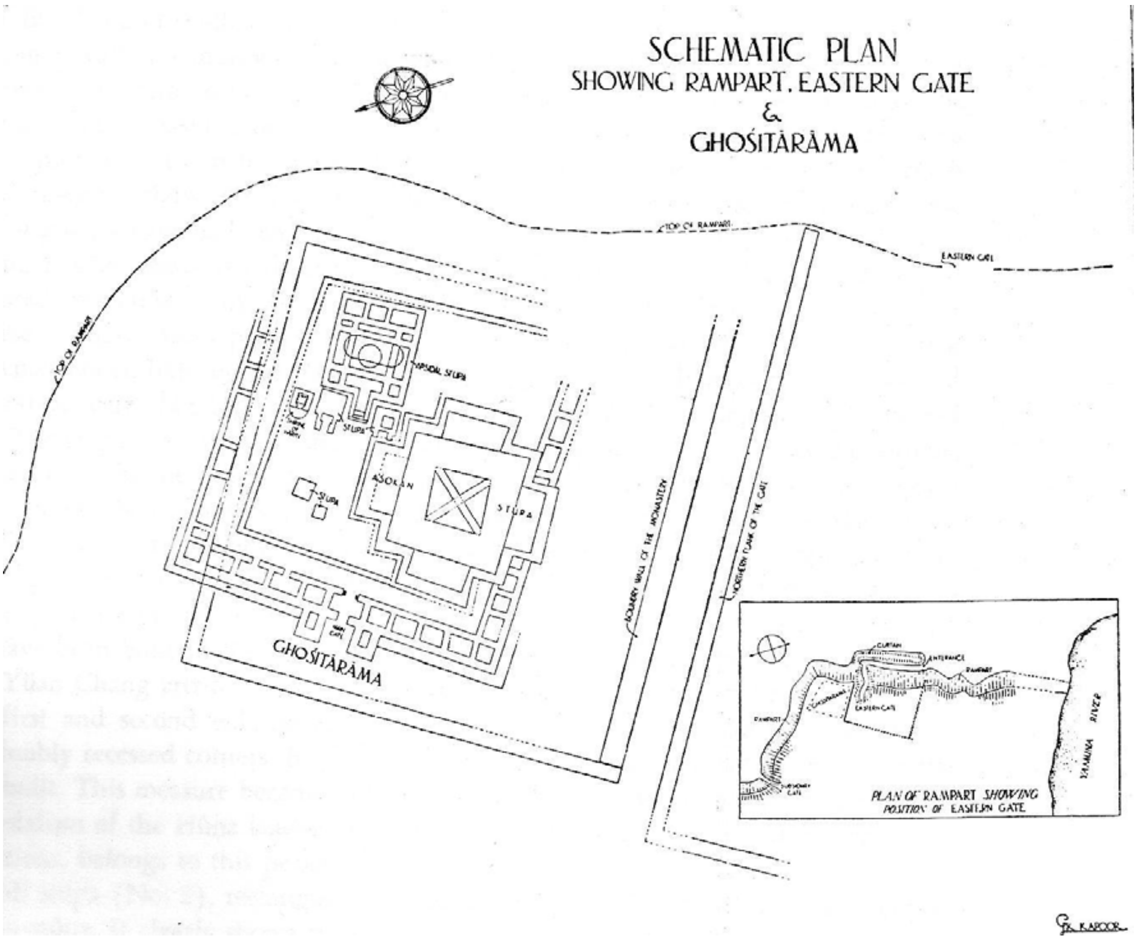


Figure 4-2 Map of the location of the Ghoshita-arama complex published by G.R. Sharma in the Annual Bibliography of Indian Archaology for the Year 1956

A full consideration of the evidence of this site is not possible here but the following abstract must suffice: Occupation at the site considerably pre-dated the early historic period. This was the first of a

of Central Asia in the Kusana Period, Dushambe (Tadjikistan) U.S.S.R., September 25-October 4, 1968 (Allahabad: Dept. of Ancient History, Cultural and Archaeology, University of Allahabad)

[19] Aruna Tripathi *The Buddhist Art of Kausambi*, (2002, D.K.Printworld, Delhi),

series of localities within the site where the Allahabad university excavators encountered a distinctive assemblage characterised by a Red Ware which did not conform to any known assemblage at the time but is today understood as the Kakoria-Koldihwa complex or the Vindhyan Chalcolithic. The chronology of the site is unclear but a preliminary consideration of the excavation notebooks and the loci of diagnostic types consulted at the Prof. G.R. Sharma Memorial museum suggests that the initial layers were considerably disturbed by later occupation and also understandably in the course of the erection of the monumental architecture of the Buddhist complex in later times. Nonetheless it is at some point of time in the late NBPW levels which may suggest a date of circa 3rd century BCE, even possibly a bit earlier, that it appears that an initial complex of some form was constructed, which was obliterated not only by later construction but also by what the excavator termed massive destruction. Subsequently the complex underwent a series of complex transformations and is known to have continued till at least the 6th century CE. An appendix to this dissertation provides a collation of all the disparate publications of the Ghoshita-Arama and provides a preliminary discussion of the evidence they afford. That discussion is not included here as it would depart from the aim of this chapter which is to provide a history of the production and debate over the archaeological histories of Kausambi over the course of the latter half of the twentieth century.

One reason perhaps why the publication of such stunning and stimulating evidence as from the Ghoshita-Arama was not published is because in the years to follow, specifically in the seasons form 1957 through 1959 the excavators were seized with evidence more compelling and topical and the interest shifted towards a consideration and publication of those. In fact, it is extremely important to note that the dynamism of G. R. Sharma ensured that the report once prepared was printed an available by the July of 1960[20] and was thus in the public domain prior to the earlier report, which had been held up with delays at the Government of India press since 1955. This 'earlier' report was eventually published only by 1969. In fact the focus and the consideration of what the excavator himself made of the site had changed so much by that time, that he added a preface to the 'first report', which is a lucid and clear statement on what was made of the diverse range of cultures evidenced at Kausambi. Thus the discussion which was provided in this second volume, the report of 1960 came to frame the manner in which the wider world received the work of the Allahabad University for long, and many were not aware at the time of the massive amount of documentation which had already been achieved for this site in the first volume.

[20] Sharma, G. R. (1960), *Excavations at Kausambi (1957-59) The defences and the Syenaciti of the Purusamedha* (Allahabad: [Department of Ancient History, Culture & Archaeology)

The major discoveries of these years are numerous and require clear explication at the very beginning of any effort to try and comprehend them. The most spectacular demonstration of the excavations was the fact that the massive overgrown fortifications of Kausambi revealed a huge brick faced wall with revetments, and many associated structures and a complex multi-phase chronology of additions, repairs and modifications. Further, in the trenches associated with this complex and in the adjacent ones far clearer evidence than that from the Ghoshitarama emerged of the earliest settlement period known at Kausambi. A ceramic assemblage of thick sturdy Red Ware associated with a crude Black and Red ware and Gray and Buff ware emerged as a completely new horizon and threw up the issue of trying to understand its origins. The cultural complex as understood was further complicated by the definitive presence of Iron artefacts in its upper layers and thus could not comfortably be described by the appellation 'Chalcolithic'. The third major discovery of these years represented a disturbed but striking structure, in the midst of which were found the remains of a disarticulated human skeleton and a complex miscellany of associated findings. The combination of all of these was combined with a massive examination of vedic literature to suggest that the structure was a syenachiti, or altar designed for human sacrfiice.

The truly massive nature of these complex discoveries each forced a major re-evaluation of what might have been the origin of the city of Kausambi. Who were the first settlers and who were the people who built the rampart? What is the cultural tradition of these people and what implications did this have for the manner in which we can understand the nature of the site of Kausambi itself and its evolution. It is understandable that the range of the new evidence led the excavators to rethink some of the themes along which earlier arguments had been structured as well, most significantly that of the foreign element and its role in the history of Kausambi. As shall be argued below, much had changed in the second half of the decade of the 1950s in Indian archaeology and it is important to recognize the exciting new contexts of that time and to understand the arguments that were made from that vantage point.

The massive brick-faced rampart has been the subject of much subsequent speculation and debate. It is noteworthy that one of the first estimates of the excavator dated to a more traditional 600 BCE timeframe and it is upon the subsequent discovery of a much earlier cultural complex that the suggestion was made that the defences and the earliest period at Kausambi may extend as far back as 1025 BCE. To understand the complexity of the evidence and the manner in which it was understood, it is important to highlight that this discovery was the first major reporting of Dish-on-Stand like vessels outside of a hitherto known Harappan complex or zone. At the time neither the Chirand complex was known and more importantly not even the Kakoria-Koldihwa complex, to

which this phase belongs, had been discovered. In the same years as these discoveries the first major excavation of a Harappan site in Uttar Pradesh were being conducted, that of Alamgirpur, and had opened out a range of new possibilities for contemplating the eastern most spread of the culture. At the same time, the excavations in Gujarat at sites like Rangpur and Mehagaon had opened out a new vista in the Dark Age, that of contemplating Late Harappan cultures, which were different enough and yet similar enough as well. A lineage from these cultures to later 'Chalcolithic' times had also been suggested at Navdatoli.

Much of these explanations current at the time were premised upon the essential feature of the meta-narrative that there can only be two parties to the solution of the problem of the Dark age: Harappans and Aryans. In an academic world where diffusionisms of various flavours seem to have been the only extant and major paradigm for understanding the trajectories of cultural change and growth G.R. Sharma proposed a solution to the vexing problems of Kausambi that was unique and yet consistent with many of the other explanations that were current at the time. Sharma argued that the culture before him embodied elements that were both Aryan and Harappan at once, thus it must have been born out of a people who were Aryan but had been 'in close contact with the harappan culture and borrowed from it the elements of an Urban civilization including a specialized form of defence architecture.'[21] The other half of the solution involved trying to trace the specific pathways of this culture and for that Sharma utilized his standard methods of ceramic comparison which led him to premise a comparison with Navdatoli and sites like Rangpur of the Gujarati Late Harappan. The argument for an Iranian element had already been made for the Navdatoli and associated cultures and thus fitted in with an alternative and less often considered Iran-centric model of Aryan diffusions into India.

The debates over this association came to be intensely complicated by the other arguments that were also made at the same time. The association of this oldest cultural complex with the basal levels of the Rampart complex led to the argument that the defences were also as old as 1025 BCE which proved to be the most controversial of all suggestions. This issue probably struck at the heart of the uncertainties of the Dark Age and suggested a situation that was implausible according to the existing constructs. The issue of the date of the ramparts has been dealt with at length by many scholars and does not need additional review here.[22] The position taken here is that the ramparts, and especially their brick built phase are not dateable to the earliest period. It appears that there was a form of mud brick or perhaps rammed mud construction which may relate to this phase but

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[21] G.R. Sharma (1969), *Excavations at Kausambi, 1949-50* (Memoirs of the Archaeological Survey of India ;; Delhi,: Manager of Publications) Preface

[22] A.Ghosh, *The City in Early Historical India* (Simla, AIIS, 1971) then Erdosy SAS article

may not have been part of the defensive complex or constituted any such architecture. The ramparts in an original form, as was hard to establish even from the excavations as they had been so repeatedly embellished probably dates to a middle NBPW phase. There probably have been a sequence of additions since and on account of the known use and proliferation of brick architecture at the site probably relates to a period between the second century BCE and the third century CE. An important facet to consider is also the possibility of late repairs, upkeep and modifications to the site in times such as the early medieval and the medieval proper as parts of the site are known to have been occupied at that time as well.

The other interpretation which caused much debate and remains contested by many even today was the identification of syenachiti in the area adjacent to the excavated defences. This was a structure which was dilapidated and ruined and as the published plan shows was found collapsed across many levels.[23] The conviction behind much of the argument that this was a major ritual structure has stemmed from the finds associated with the skull in these contexts. It is on the basis of these and an understanding of what is a textual representation of the actual ritual that a series of specific identifications were made as evidence for the nature of the structure.[24] It is important to note that the 1950's again were a period when the discovery of such massive and monumental altars had been a major revelation of Indian Archaeology, the most famous example being that of Jagatgram.[25] The identifications and the great effort at understanding the prescriptions about the ritual in the texts were motivated by this climate of possibilities. The discussion on the possibilities of the structure however must report the fact that the site itself, has been completely eroded away in the interim and any semblance of a structure in that areas has been removed by erosion. Thus, it is impossible to generate any new perspectives about it at this stage via a field examination of the site.

At this point it is important to break from the close description of the events of the excavations and the manner in which the discoveries were interpreted and take stock of how they were sought to be understood and how they contributed to other more general arguments about Kausambi that were being framed based on that evidence. It is important to note that the quest to understand the pottery of the earliest levels of Kausambi took other dimensions than just trying to establish its relations with the sites of the Gujarat and the western Deccan. In the *IAR 1959-60* the Allahabad University report their findings from explorations elsewhere within the Allahabad District and reported the occurrence of both a Painted Gray Ware and a red ware similar to that discovered at

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[23] Sharma, G. R. (1960), *Excavations at Kausambi (1957-59) The defences and the Syenaciti of the Purusamedha* Figure 16

[24] Ibid., the second half of the report is perhaps the most comprehensive essay evaluating the evidence from the Vedic corpus on the theme of the Purusamedha and the Syenachiti.

[25] IAR 1953-54, p .9-10

the earliest levels of Kausambi. The sites in question were situated on the Ganga and a selection of the pottery types and the specific incised decorations were described and additionally drawings and photographs published as well. Incidentally, one of the sites, Unchdih, was also fortified and at the time thus interpreted as mini-Kausambi. It is important to stress that despite the importance of these sites they have not since been meaningfully re-visited and this was regrettably not possible during the course of the present dissertation's fieldwork either. An examination of sample of curated materials at the Prof. G.R. Sharma memorial museum was possible and is the basis of the following discussion. Both sites appear to be complex, multi-period large sites. There are samples of an early Black and red ware at the sites and these are curated at the museum. On account of the early red wares, the published photos in the *IAR 1959-60* represent a diverse and probably heterogeneous surface collection and represent multiple periods. A number of these can be designated as clearly 'Medieval' and have published parallels even from the first volume of the Kausambi reports. Other types however are clearly different and need a fuller examination and comparison against the new evidence from Jhusi to ratify their probable status as being components of the Kakoria-Koldihwa complex. The drawings of types also seem similarly heterogeneous but clearly do represent some forms which belong to this early complex and are thus testimony to the fact that a secure and sustainable identification of the sites had been made at the time.[26] The main obstacle in a comprehensive analysis of these wares remains the very minimal level of publication of details from the sites of Kakoria and Koldihwa, and a study of their curated material as well as the expected full report of the excavations at Jhusi shall clarify these issues tremendously.

The other half of the interpretation of the Syenachiti was the idea that it had been constructed and utilized after the scene of a major war in which Indo-Greek invaders had either been overthrown or repulsed and the purusamedha had served as an act of commemoration for the victorious indigenous ruler. Much of the narrative of foreign element was premised upon an analysis of the Iron arrowheads, a theme of analysis which dates back to Marshall's investigations at Taxila. Marshall and thus Sharma's methodology was to construct a detailed typology of arrow head types and then propose whether all of them appeared indigenous or whether some on account of form, appeared intrusive. At Kausambi, Sharma's major efforts at systematising what were a large corpus of Iron arrowheads led to the suggestion that certain types did form their own group. The interpretation that followed was then ethnic and nationalist, based again on an established pattern

[26] *IAR 1959-60* p.45-47. The illustrations of key pottery types are on pages 45 and 47 and are figures 17 and 18 respectively. The accompanying photograph is pl. XLVII

of deductions and apparent similarities with a group associated with the Bactrian Greeks at Taxila[27]. This identification of Saka-Parthian arrowheads, alongside the established practice of the ethnic interpretation of the plastic terracotta art, forms another major organising trope in the archaeology of Kausambi. From today's standpoint it is necessary to state the while such directly ethnic interpretations are clearly overstated and almost bipolar in their interpretation of the ancient landscape Sharma here was attempting to grapple with evidences and ideas about cultural change in the Early Historic which have not received much attention before or since then.[28] In the years to follow the thesis of foreign invasions, by a series of ethnic groups from the North-West, the Indo-Greeks, the Saka-Parthians and the Kusananas were all identified and suggested and Sharma proposed a model for how these could be identified and placed in the archaeology of the Ganga plains. Sharma provided what is till today the only comprehensive list of sites known to have witnessed 'signs of a massive conflagration' and a break in their cultural sequence in levels pertaining to the beginnings of the Early Historic.

While this theory never really received any great discussion at the time it is salutary for having drawn attention to the range and distribution of sites with such evidence. It is also under-considered because of the lack of clear and full publication of such evidence from any excavation, including the fact that no scientific or technological means have been used to establish what the ash layers are actually comprised of and what sort of deposit they represent. Further, despite the emphasis on the publication of sections and a description of their content the archaeological literature has often failed to clearly represent to its audience the 'massive' nature of its evidence. The position taken here is that such evidence is indeed widespread and demonstrates a key and as yet not fully understood distribution. The majority of such occurrences seem to be confined to a period of the late and middle NBPW phases and are probably a complex record spanning a couple of centuries rather than an episodic event which links most of these sites together in a single wave of any 'invasion'. They do represent nonetheless an important and crucial record of certain transformative processes during the Early Historic and suggest a competitive realignment between local powers which had often taken a militaristic and combative dimension. It is difficult and perhaps unwise to suggest anything beyond this until there is new excavation of such a deposit and a fuller account of such a material record is presented.

[27] For a succinct statement of the reception of Marshall approach: 'The great achievement of Sir John Marshall in isolating the foreign traits in the voluminous finds of Taxila is a romance of Indian archaeology', G.R. Sharma, *Kusana Studies*, p.59

[28] G.R. Sharma, *Reh inscription of Menander and the Indo-Greek invasion of the Ganga Valley* (Studies in history, culture, and archaeology ;; Allahabad, India: Abinash Prakashan, 1980)

In summary, the excavations of the seasons of 1958, 1959 and 1960 were crucial and critical to the development of the excavator's opinion about the history and archaeology of the site. They presented radical new forms of evidence on many counts which appeared completely at odds with what was understood of the trajectory of Ancient Indian history at the time. The excavators based their interpretations upon a close examination of the stratigraphy and comparative cultural sequences of the site and then sought to place this evidence, as best as they could, within the ideational and theoretical parameters of the time. They did justice to the site and its complex evidence by presenting it to the public quickly and forcefully in the form of the second report. This is a report which generated much debate and heated exchange and its reception and the consequent emplotment of Kausambi within the meta-narrative are issues which this discussion will now consider. However, prior to that, the next section will detail the next four seasons at Kausambi during which an equally problematic complex was excavated.

IV. The excavations at the Palace Complex and the Fort on the Yamuna: 1960- 1964

Hitherto all the operations of the Kausambi excavations had been limited to the central and the eastern parts of the site. In 1960 a new area was located and a trench opened at the highest location of the defences, a site referred to as Bhavaraigarh, by the locals. Unfortunately the details of the 'tower' found at this location have not been published. In 1960 attention shifted and was brought to concentrate upon a complex in the south-western corner of the site where traces of a massive stone built complex were visible even on the surface. In the course of the next four years truly massive excavations, on a horizontal scale, were laid over different parts of this complex and revealed a number of distinct architectural features.[29] Most notably it revealed a major fortress built out of dressed and coursed stone masonry with a number of extant and prominent bastions. It revealed a massive amount of stone debitage and debris which accompanied the complex and suggested a complex life-history. Inside this complex and along the bank of the Yamuna, the excavations revealed some of the best preserved architectural remains excavated anywhere at Kausambi. These constituted a large complex, designated a 'palace' centred primarily upon the remains of a series of interconnected large rooms with an adjoining series of small cells and a large courtyard like complex. The most prominent aspects of this complex was that it seemed to preserve multiple level i.e.,

[29] In the season of 1961-62 84 trenches of 21 feet by 21 feet were excavated. Information from Final site Notebook, KSB XV, 1961-62, curated at the Prof. G.R. Sharma Memorial Museum.

building stories, of the same complex, a staircase clearly led up to the a higher platform like level and underneath this are were a unique and distinctive series of there arches in what appeared to be basement like area. Notably some lime-plastered walls were revealed as part of this complex as well. In this area and a massive area horizontally excavated in the Northern part of this complex, a cultural sequence was unearthed which both paralleled and established further the tremendous depth of the cultural sequence at Kausambi. This cultural sequence provided further evidence of the ceramic diversity and range of the earliest levels while also going some way in stressing the existence of the presence of other wares alongside the sturdy red Ware such as a Black and Red ware, significant painted traditions in the Red ware and the presence of a grey ware which was more than occasionally accompanied with a black slipped ware. Unfortunately, the results of this entire massive operation were not published in the form of a report as for the other sectors of the site. Like the Ghoshita-arama however, significant brief abstracts were published in the *Indian Archaeology- A Review* for the years from 1960-61 through to 1964-65[30]. Additionally, a considered and final statement which brought together many strands of the diverse range of interpretations offered for the site were published in essay form, including major evidence from the other excavations at the site in the volume *Kusana Studies*.[31] The attempt below shall be to address the succession of interpretations which were advanced for the whole complex and additionally draw upon the unpublished annual draft reports prepared by the excavators at the time which I have been privileged to have been able to consult alongside site-notebooks at the Prof. G.R. Sharma Memorial Museum.

From the moment attention was turned towards this sector of the site it became clear and apparent that a different order of architectural complex was under the trowel. As the excavations proceeded, the massive scale of the complex came to be a first factor influencing the manner in which it was considered – and thus was termed a fortress and a palace. As the architecture revealed itself to be at the centre of a large and multi-part complex it became necessary to establish its plan, construction and history as well as its place within the lager stone fortress. As these were being done by excavating with a view to preserving and detailing structure, the limited excavations to greater depths, seemed to reveal equally that the complex had many phases and a deep past. Clearly, at the Palace-Fortress complex, the Allahabad University excavators had encountered aspects of the archaeology of Kausambi which they had hitherto not confronted. Equally, G.R Sharma and his

[30] IAR 1961-62, pp.52-53, IAR 1962-63, p 32, IAR 1963-64, p 40, For the last season at the site see IAR 1966-67, p.38-39

[31] Sharma, G. R. et al. (1998), *Kusana studies :* (Allahabad: Dept. of Ancient History, Cultural and Archaeology, University of Allahabad)

associates came to the study of the Palace Complex with different ideas and themes than which had structured their previous consideration of the archaeology of Kausambi.

The major and epochal discovery of Megaliths in the Vindhyan region in 1961 shifted part of the attention away from Kausambi and directed it towards what would come to be a prolonged and continuing investigation into the archaeological cultures of the trans-Yamuna Vindhyan region. The discovery of initially Megalithic and Iron Age sites, their excavation, and subsequent excavations at a host of 'Neolithic' sites provided a whole range of new evidence in terms of the cultural assemblages of the greater region. However, the thrust of interpretation here again remained mainly a culture-historical and social evolutionist one and remained a deciding factor in the manner in which these groups were sought to be inter-related. Thus, there remained a general overarching paradigm of the 'Chalcolithic' within which cultural traditions are broadly the same and generally comparable. Thus comparisons continued to be made, principally on the basis of ceramic types and the traditions of painting and decoration, between sites which ranged as widely as from Bara and Rupar to Chirand and Sohgaura and to Mehagaon and Rangpur in Gujarat. The practice itself was not uncommon and in consonance with ideas about cultural evolution and methods of comparison even today.[32] Yet, it did prevent a comprehensive re-evaluation and re-statement about the early levels of Kausambi until a comprehensive work on the ceramic assemblages of the Vindhyan region was attempted.[33] In this way the consideration of the earliest levels of Kausambi continued to be informed by an anxiety to relate it to the greater culture-historical pattern rather than the emergent local complex it was so evidently a part of.

A second major shift in the consideration of the evidence stemmed from a new interest in the post-NBPW phase which hitherto, as noted above, had been treated as singular and homogenized. The problems of this were noted and sought to be redressed, with an aim particularly towards stressing the archaeology of the Kusana period.[34] This interest in the Kusana empire and with its archaeology came to be stressed largely due to a creative and stimulating engagement G.R. Sharma had with Soviet archaeologists during a visit to the USSR in the late 1950s. The resultant discussion and consideration of the evidence form Kausambi after this exposure to the nature of the material cultures which at the time were associated with similar time-frames and dynasties in Soviet Central Asia played a crucial role in the manner the palace complex came to be understood. The early 1960s

[32] Cf. M.D.N Sahi, 'Early interaction between Cultures of the Mid-Ganga Valley and Western India', *Pragdhara* 15, 91-115

[33] J.N. Pal, *Archaeology of Southern Uttar Pradesh: Ceramic industries of Northern Vindhyas* (Swabha Prakashan, Allahabad, 1986)

[34] Sharma, G. R. and University of Allahabad. Dept. of Ancient History Culture and Archaeology. (1998), *Kusana studies :* (Allahabad: Dept. of Ancient History, Cultural and Archaeology, University of Allahabad)

were also a period of a major phase of engagement with the history of the Kusana's and was the evidence from Kausambi had been raised a number of times in these contexts. Since then, while the parameters of the Kusana empire have not been comprehensively revisited the discovery of the Rabatek inscription as mentioning Kausambi has contextualized and underlined the importance of these early efforts at making sense of the Kusana presence in the Ganga plains.

G.R.Sharma and J.S. Negi presented a powerful account of what they comprehended the Kusana presence in the Ganga plains in the volume *Kusana Studies*[35]: they argued 'That the Kusanas came not merely as traders and visitors but as conquerors has, we think, now to be allowed as a near certain deduction from cumulative data'. Further on 'It is no longer a question of a few Saka-Kusana influences here and there; it almost the transplanting of a whole complex from the North-West into the East'. The cumulative data they refer to is marshalled in the central essay of Kusana study and relates principally to inscriptions, coins, coin-moulds, Saka-Kusana 'foreign' terracotta types, the identification of some north-western pottery types and eventually of the Palace complex, a major constructional phase of which came to be associated with the Kusana's principally on stratigraphic grounds and associated ceramics. The reified nature of what is identified as 'foreign' in such discourses is a part of a wider aspect of Gangetic material assemblages from the early centuries CE when there are significant changes. These changes, have often been viewed primarily through the lens of art-historical critiques which have traditionally spoken in a language of cultural binaries and have especially as when centred upon Mathura highlighted such 'foreign' elements. Indeed, there are significant linkages with a wider Central Asian world which are undeniable but the position taken here would argue for a more dynamic and subtle characterization of these processes. Rather than picture the scenario as one of Invasion and cultural replacement there is ample parallel evidence to suggest continuities and changes of a more slow paced nature. Thus, the material culture equally represents a record where there are complex negotiations occurring over the crucial sites of identity, representation and these are probably implicated in a complex and shifting scenario of political power which is being negotiated, produced and contested at many levels. Thus while, at some level, despite intense problems with the archaeology of South Asian empires, there is as clear a case as any other of some form of Kusana presence at Kausambi, the wider ramifications of such a manifestation have perhaps been overstated and simplified.

The Palace complex itself became the site of a debate which ensued from the identification of an arched underground, i.e., basement complex, which was on account of parallels with some examples in Soviet central Asia argued to be of the Kusana period. Two aspects must be highlighted here, the

[35] Sharma, G. R. and University of Allahabad. Dept. of Ancient History Culture and Archaeology. (1998), *Kusana studies :* (Allahabad: Dept. of Ancient History, Cultural and Archaeology, University of Allahabad)

arches themselves were excavated with care and have been published in some detail for Kausambi, but the literature for the Central Asian examples has never been available nor tracked down for a revisition of the identification. Rather than engage with the specific identification the following discussion shall now proceed with the aim of describing the entire complex and the Palace within it as a means of approaching the problem. Access to unpublished site notebooks, ceramic collections and ceramic classification studies as well as to a draft report which was prepared at the time has enabled a reconstruction of the accompanying elements of the complex for which a chronology of four periods further divisible into ten sub-periods has already been described.[36] The stratigraphic context of much of this large complex was built upon the discovery of the full Kausambi sequence at a number of key trenches, particularly in the Northern part of the site. The excavations alongside the walls of the stone fortress seem to have yielded evidence of some ceramics of these early periods having been shored up alongside certain parts of these long and monumental walls. The site-notebooks which often having drawings of the sections of key trenches and observations made in detail upon the nature of these deposits describe a context which is vastly disturbed, something that seems to have been corroborated by the range of ceramics which were found in single units: such as that of KSB XIV during my very preliminary examination of the curated materials. Additionally it must be stressed that stone architecture of various different types of construction was identified. Differences in terms of the manner of laying and setting of the blocks as well in the manner of the blocks themselves was documented. The notebooks record a progression from undressed, or roughly hewn boulder sized blocks forming the first period of parts of a wall and subsequent stages see dressed and eventually finished blocks replacing and accompanying the use of bricks in other structures. I do not believe that these are different phases but that they are single phases of the same structure and the unhewn boulders were simply those set below ground. This ia also the evlaution which B.B. Lal and his associates came to. The excavations while aiming at conserving the architecture rather than destroying upper phases to reveal earlier structures did reveal ten different subphases for the elaboration of which apparently a detailed observation of roof-tile types was undertaken, revealing discrete associations with different floors and a differential distribution across them. These are perhaps the strongest piece of evidence that there existed a complex series of structures at the complex and since this has not been published the full consideration of the complex has not been possible.

The extant complex, especially as in the preserved architecture today includes prominently the stone fortress, as revealed more completely by excavation and a number of bastion towers, one of which

[36] Sharma, G. R. and University of Allahabad. Dept. of Ancient History Culture and Archaeology. (1998), *Kusana studies :* (Allahabad: Dept. of Ancient History, Cultural and Archaeology, University of Allahabad) p.10

stands on the bank of the Yamuna ahead of the 'Palace complex'. Together they seem to represent a medieval complex in their plan and morphology, as well as the usage of lime-plastering and of certain brick sizes in their construction. On the count of the stone fortress, as it is linked with the bastions it too appears to be of a similar date and similar grounds seem to be deducible from the manner in which it is perched on its western arm upon the previous and extant rampart of the site. This consideration of the stone complex as visible today this suggests it is part of an extensive medieval occupation of the site, something which had not been considered at the time of its excavation in the 1960's. The evidence for previous occupations within the area of this later complex, undoubtedly seems to have been complex and multi-faceted. A discussion of the surface archaeology of this area is considered in the next chapter and hopes to illustrate the fact that the medieval constructions were massive and entailed the disturbance of a large part of the already complex archaeological strata underneath. A re-examination of the massive amount of well provenienced and curated materials at the Prof G. R. Sharma memorial museum may be a viable route to re-examine the stratigraphic association of the site although an examination of the small unexcavated parts of this area may be the only way to settle and establish some of these vexing questions. On the basis of a preliminary study of the site notebooks and the detailed discussion of the stratigraphy two points emerge clearly: the previous arguments about the early phase of the construction of the rampart seemed to have guided and informed the study of the site in a considerable manner, which is understandable. The aim of the excavations along the Eastern arm of the stone fortress in particular seems to have been to expose the structure, rather than to excavate the older fortification wall it is perched upon. Additionally, it must be remembered that in the 1960's no one had contemplated the possibility of a major medieval occupation at the site.

As difficult as it is to comprehend features of the stratigraphy from excavation records alone, when there are none of the original sections to re-examine the following is the picture that this study comes to: the excavations revealed the use of stone architectural members in many forms and over many periods. There seem to have been more than one phase of construction for the stone fortress itself and this is a significant aspect of its archaeology which needs to be considered. The interpretation of the stratigraphy of the site was based upon a meticulous and detailed program of ceramic analysis, which included quantification by ware for every locus, and is the basis upon which the association of the earliest phase as contemporary with the painted gray ware period was made. It appears that some of these levels may have been quite highly disturbed as a result of the massive later construction activity and its need to set the stone masonry in secure foundations. It remains unclear what the cultural associations of this period are and any attempt to re-evaluate this shall need to consider as much of the vast curated materials and records, rather than any sample to try an

approach an understanding. One further fact is also clear, which the subsequent chapter on the survey of this area shall also stress, that the post-desertion unpacking of this area, primarily as scavenging for stone by the local and neighbouring villagers is also a major feature which contributed to the archaeology of the site, by adding considerable debris and further disturbing both the architecture and the materials in the levels associated with it. Thus the extant stone fortress appears to be medieval in date, as does parts of the Palace complex on its riverbank front. This evaluation does not however preclude the possibility that there existed many earlier levels at the site, some of which may have also witnessed some form of stone architecture.

A final episode in the archaeology of Kausambi and the investigations of the Allahabad University at the site are the excavations at Mainahai, a site 1500 metres to the East of the Eastern gateways and perhaps on some form of a pathway to the site. The site was one of the many of the outlying mounds in an area of 'a couple of miles away from the defences' and was brought to attention by considerable and large scale landscape modifications and land reclamation activities which had brought to light considerable architecture and stone sculptures. A single season of extensive excavation detailed the existence of two important components of the site. The first was a massive feature described as huge columned building which was ascribed a religious connotation on account of the sculptural debris found near the site. These prominently included a lotus pillar capital and two to three fragments of stupa railing. Further, there are also reports of architectural stone members and large features in brick. Additionally the site yielded 'massive' debris of stone chippings and appeared to have also served as a sculpting workshop. A detailed plan was prepared at the time but did not end up being published. The excavator ascribed a period of the first to the fourth centuries CE to the site which may be considered as a shorter chronology than probably was valid, as suggested by the nature in which the post-NBPW Red wares were evaluated and the ceramics found during the brief survey visit there (described in the next chapter.) Mainahai thus is the second site in the immediate hinterland of Kausambi to have been excavated and provides powerful testimony to how the area outside of the ramparts was an integral part of the city and was deeply implicated in its landscapes of social identity and sacred space. The site was excavated in the season 1963-64 and the excavations at the palace complex reached a conclusion in the year of 1966-67 by which time the focus of the Allahabad University's interests had been definitively been diverted and relocated to the Vindhyan region.

V. Reactions and considerations: The reception of the Allahabad University excavations

In the period from 1949 till 1964 as the excavations of the Allahabad University generated a series of new and often annually revised perspectives about the site, these missives from the field and the trenches came to constitute a very important and often controversial element in the active and energetic debates of the period. The initial reports from Kausambi seemed to have found general acceptance of the reviewing public but it was the issues of the early levels, their associations with the fortifications and the date that was proposed for that came to take centerstage in what was to become major and acrimonious debate. Parts of this debate also came to focus on the syenachiti and the stone fortress and came to dispute their identifications. By and large the ceramic associations and comparisons were not commented upon at the time but found significant and important comment at a later point of time.

A review of the entire range of reactions to Kausambi is not attempted here, for while no doubt that is an interesting project for what it reveals about the climate and trends of interpretation which were current at that formative period in Indian archaeology, that project is simply too large for the space this discussion can afford. What is attempted here are key considerations which framed the manner in which the evidence from the site was interpreted, disputed and then different opinions formed about it. One of the most trenchant engagements with the site and the chronology of its fortifications came form A. Ghosh whose rejection of the early dates and whose opinion that the rampart, like other Gangetic sites, dated to circa 600 BCE was subsequently taken as the definitive statement on the subject and was cited as such thereafter.[37] The dismissal of the early chronology also seemed to go hand in hand with a measure of confusion about the early deposits at Kausambi and what precisely could be made of them, especially as there seemed to be no real cultural category to place them in. Thus, the stress in some of the initial redressals of the Kausambi sequences suggested that the accounts were seriously exaggerated, and that the pre-NBPW deposit, was treated with great scepticism; some accounts even suggesting that the deposit hardly seemed to go further back than 600 BCE.[38] This form of reaction was thus one which sought to conform the evidence from Kausambi to what was emerging in the 1950's of the standard opinion of the rise of cities, of which Kausambi was taken to be an archetypal example.

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[37] A.Ghosh, *The City in Early Historical India* (Simla, AIIS, 1971)

[38] K.K. Sinha in B.P. Sinha (ed). *Potteries in Ancient India* (Department of Ancient Indian History and Archaeology, Patna University, Patna, 1969)

Another set of reactions are valuable and informative for the manner in which they sought to comprehend the way in which the early assemblage of Kausambi could be integrated with the extant and formulated meta-narrative of Ancient Indian history. The Allchin's famous series of textbooks have been in each of their three completely re-written editions important statements and synthesis of Indian archaeology. Their relation to the meta-narrative has already been discussed in Chapter one and it is these postions which seem to inform their decision to label the early deposit at Kausambi as that of the Ochre Coloured Pottery culture, a label which had never even been considered by the excavators nor by many of the other commentators. In effect, this is the binding logic of unilinearity in a narrative which focuses attention on the movement of peoples and speaks in a language of colonization. Thus if Kausambi, was to be a city-site which later evolved to be one of the greatest in the early historic, it must bear a genetic link which connects that later grandeur to an originary root which is equally cognizable. It is an index of the bias and the prejudice which has informed the study of the rise of complex societies in the Ganga basin that even a considered and introspective account such as the Allchins would consider the evidence form Kausambi in such a manner and further that it has hitherto, to the best of this researchers knowledge, not invited any comment.

The other major critique and engagement with the Kausambi evidence was that made by B.B. Lal et al who wrote a series of articles addressing the issue of the fortification, the syenachiti, the fortress and the early pottery.[39] It is the engagement with the pottery which is most significant here as it is implicated and deeply related to their own statement on the protohistory of the Ganga plains. Like many other commentators it is interesting that they note and call into dispute any Harappan similarities on the basis that the relationship is based on types which are not typically Harappan and nor are the similarities so pronounced. Both these issues, had notably always been part of the Allahabad University formulations and thus their focus had been on a more generalist comparison with other 'Chalcolithic' cultures. Specifically these arguments then focussed attention and directed the comparisons with the Bihar Neolithic complex, comparisons to which they either endorsed or reassigned. The premises of such a clarification is based again upon the evolutionary schema of cultures, a Neolithic association could be understandable but one which had associations with a 'civilized' connotation such as the Harappans, was not. The difficulties of explaining away the vast range of the complexity of the early ceramics at Kausambi is also mirrored by the problems

[39] B. B. Lal, 'Are the Defenses if Kausambi Really as old as 1025 B.C.?', *Puratattva*, Volume 11 (1979-80), p.119-135 and K. V. Soundara Rajan, 'The Use of Arch in the Kushan Palace At Kausambi', *Puratattva*, Volume 11 (1979-80), p.135-140 and K. N. Dikshit, 'Is The Early Pottery from Kausambi Harappan?', *Puratattva*, Volume 11 (1979-80), p.141-143

encountered by the this group of commentators in the course of their excavations at Sringaverapura and their trials in declaring period I as OCP as discussed above. (Chapter 3)

A priori, the controversial suggestion that the first phase of stone architecture at the site, which entails mass transportation by the river from the Pabhosa quarries 4 kilometres away, belongs to the PGW phase may also be mentioned here as being a fertile subject for consideration of the manner in which socio-political complexity has all too often been addressed in Indian archaeology. The prevalent and dominating stagism has had an overbearing impact upon the manner in which the range of complexities possible in each cultural world has been imagined. It is a self-ratifying and double-binding position if all fortifications and all architecture of any note in the Ganga plains are believed to be of a certain epoch even before the matter is investigated at a new site. While, the trajectories of construction techniques and the known chronological developmental of architecture clearly do not refer to any such evidence from these early periods – which does provide grounds for the dismissal of the association, especially as the brief published reports do not indicate the nature of the multi-period and stratigraphic evidence which the excavators encountered. The issues, which are complicated, and the evidence very difficult and unamenable to simple analysis, may be recontextualized in the following manner.

Much of what was made of the earliest levels was also premised from the manner in which it was related to the meta-narrative and its segments. Associations with the Harappans revalidated the idea of early fortifications and its emplotment as early Aryans dismissed such a possibility. The fact that the earliest levels at Kausambi seem to relate to a complex which in different geographic relation has a long tradition of monumental burial architecture, which too has rarely been considered as such, may be seen as a first step in this redressal. Further, we have still, as noted previously, very little information about the nature of the Kakoria-Koldihwa complex settlements in the region North of the Yamuna and how aspects like memorialisation of the dead were dealt with in a region devoid of stone. Until we have a clear idea of the manner in which these Iron Age communities were able to organize and control their resources and the nature of their settlements in the plains, we may do well to approach them without the culture-historical and other prejudices which have coloured all their considerations thus far.

It is also important to recognise that in the years after the Allahabad University moved on from Kausambi two major and significant statements were produced which clarified and brought together much of the evidence form the site and condensed and re-stated the arguments which had been previously presented. Sadly the richness and the importance of these statements has not always been taken into account when subsequent attempts have been made to write and comment upon

the site. Indded these have indeed rarely been cited and come to terms with. The major synthetic statement was produced upon the occasion of the silver jubilee of the Department of Ancient Indian History, Culture and Archaeology at the University of Allahabad. The small volume *History to Prehistory : Archaeology of the Ganga Valley and the Vindhyas*[40] provides the strongest and most concerted statement about the earliest levels of Kausambi and the cultural context it should be placed in its securely identified regional tradition. This is an argument which has not been heeded to date, and represents one of the main reasons why the narrative of archaeological culture provided by Chapter 3 is at such contrast with all others extant for the Ganga basin.

The arguments condensed in *History to Prehistory* are primarily based upon the analysis and categorization of two groups of ceramics from the early levels. For the first, arguments are made about similarities with (late) Harappan materials at Bhagvanpura and for the latter with sites such as Kakoria, Chirand and Sohgaura alongside the earlier arguments of similarity with Navdatoli etc. These arguments had been built upon over the course of the mid 1960's through till 1980 and had found publication in fuller form both before and after. V.D. Misra presented a paper at the major conference on Potteries in Ancient India held at the University of Patna in 1969 and therein he presented the fullest published account of the ceramic chronology of the site and this is reproduced in a tabulated and abbreviated form below to illustrate the manner in which the picture had changed since the publication of the first sequence from the 1949-50 excavations.

Table 2 Revised chart of Ceramic assemblages at Kausambi[41]

Period and ceramic code	Wares	Principal types
IA	Sturdy RW: Technique of paring before firing, visible, especially on stem of Dish on Stand.	Bowls: Shallow, Hemispherical and Ovaloid; Shallow and Convex sided dishes; Bowls cum Basins with ridges and prominent grooves; Dish on stands; Goblets; Beakers; Shallow Basins; Large and medium storage vessels;
1B	Grey to Buff ware Black slip on a smooth surface	

[40] G.R. Sharma et al (eds) *History to Prehistory: Contribution of the Department to the Archaeology of the Ganga Valley and the Vindhyas* (Department of Ancient History Culture and Archaeology, University of Allahabad, 1980)
[41] As defined in V.D. Misra 'The pottery of Kausambi' in B.P. Sinha (ed). *Potteries in Ancient India* (Department of Ancient Indian History and Archaeology, Patna University, Patna, 1969)

1C	Coarse B&RW Clay coarse, larger quantity of rough organic material and very small pieces of stone as used as degraissant – rugged texture full of cavities; Turned on a slow wheel and fired in an inverted position. Some of the sherds are painted in white pigment on a black slipped surface.	
1D	Black ware	
2A	RW: Ware is well fired, turned on a fast wheel and is treated with a bright micaceous ocherous slip on both sides. Some painted in black or white pigment. Horizontal bands, Vertical bands with varying thickness and pellets enclosed within bands, mostly confined to rim and neck of surface, in others whole of outer surface seems to have been painted. Few cases of paintings on inner surface as well.	Bowls; Dishes; Bowl on stands; Dish on stands; Basins; Rimless and neckless vessels; Large and medium sized storage vessels; Carinated cooking vessels;
2B	B&RW Superior in preparation of clay, firing and general finish to 1C.	Bowls; Dishes; Small vases;
2C	Incised Ware of both RW and BW?	Wavy lines; Triangles; Zigzags; Concentric circles; Inverted loops;
3A	PGW Well levigated and thin section; On grey, sometimes light brownish-black slipped surface are painted designs consisting of simple horizontal bands usually on the rim or on the body. Also, motifs of groups of vertical or oblique bands or strokes-circles, loops on the body	Bowls Dishes
3B	Black Slipped Gray Ware Carefully turned on a fast wheel, treated with a smooth black slip and possibly also burnished.[42]	

[42] 'Although dissimilar in fabric, finish and firing from the well known NBPW, its occurrence in the painted Grey ware strata does present a stage when people were experimenting with the production of polished black ware.

3C	Plain Grey Ware	~Painted GW
3D	B&RW	~2B
3E	Red Ware Medium to coarse fabric; Large and medium sized storage jars are handmade and wheel made rims are luted onto them, dabber marks at joining points.	Bowls; Dishes; Basins; Large and Medium sized vessels; Bowls-cum-vase with everted rim; Small Vases;
3E*	Bright slipped RW Smooth and well levigated clay and is also better burnt like the plain and black painted Grey Wares of the period.	Some of the types occur in the GW as well.
4A	NBPW[43] In various shades: Black; Steel gray lustrous blue; Orange; Tan; Chocolate; Brown; Drab; Pink; Buff; Cream; silvery; Golden; Painted with bands, strokes, dots, concentric and intersecting circles, semi-circles, arches, loops, wavy lines and other complex motifs in Black, cream or blue mostly on tan, dark brown, drab orange and dark gray surfaces. Base stamped design of circles, ring of dots, wheel spokes and taurines.	Bowls; Dishes; Basins with collared rim; Basins with Spout; Lids; Carinated Handis; Globular vessels; Small miniature and medium sixed vases and surahis;
4B	Plain GW Medium fabric, thicker section and comparatively rougher surface than that contained in the PGW of pd III. Painting tradition continues in a degenerate form in pd IV, Bowls and dishes of this ware bare stamped designs on interior of base such as concentric bands or grooves stylized rosettes.	Bowls; Dishes; Basins; Lids; Carinated vessels; Vases; Stands; Spouted vessels;
4C	Black slipped Gray ware; Shares all the characteristics of the thick GW described above and needs no repetition. The only marked	

Its body is pervious and does not bear so much of a luster as the well known NBP ware. The ware is represented mainly by bowls and dishes. Also argued to be similar to Hastinapura, Atranjikhera, Kakoria.' V.D. Misra 'The pottery of Kausambi', p.204

[43] 'It is however, to be noted that the earliest evidence of lustrous polish is not furnished by the bowls and dishes which this ware shares with the PG Ware. The lustrous polish appears first on the external surface of the vases and thick stems of stands of RW.' V.D. Misra 'The pottery of Kausambi', p.208

	difference is a film of dark black slip.	
4D (misspelt as IIID in Misra..)	RW Medium fabric containing sand-particles, husk and straw in the paste and core thus shows small cavities and fissures; Usually treated with a red slip which is ocherous in composition.	Strictly utilitarian: Cooking vessels; Drinking vessels; Water Vessels; Storage Jars; Pots for covering purposes;
4D*	In contradiction to 4D, a few sherds of RW have a consistently smooth paste and also better burnt and smooth surfaces are treated with a bright slip.	
Periods IV and V[44]	Stamped and distinctive shapes in the Red Ware which approximate types found in Central Asia	Conical Cylindrical Bowls, Carinated Bowls with everted rim, Carinated convex sided bowls, Carinated bowl with rounded rim and incurved sides.

The significance of the discussion above is twofold. Firstly, it provides the only detailed and complete description of the range and variation in the major wares found in the early and early historical levels at Kausambi. This description is the one that this further study of Kausambi is based on and is the primary guide for the survey project attempted. The second aspect which is equally significant is its limitations, especially in its inability to describe any ceramics of note after the end of the 'Kusana' period and equally in quantifying proportions of wares against each other in the assemblages described. Despite these it is important to also document here that this work was based upon a massive program of ceramic analysis which allowed such a clarification from the extremely large amount of sherds which were processed during the excavations. It is also salutary for having made the distinction between clear description and interpretation and not sacrificing the former for the latter, as was the case in many early reports.

Thus, over a period of over thirty long years the University of Allahabad's Department of Ancient Indian History, Culture and Archaeology carried out prolonged and detailed investigations into the archaeology of Kausambi. They were confronted with material cultures which were completely new to archaeologists and were presented with testing challenges of interpretation. They excavation records and the curation of the excavated materials have been of an almost unparalleled order and

[44] V.D. Misra 'The pottery of Kausambi', p.209. This is the slightly confusing manner in which the pottery of the post NBPW periods is briefly described in this paper

continue to allow us to revisit the material cultures upon which the foundations of their interpretations were built. The attempts made to place Kausambi in its context continue to have a deep and binding relevance and while placed within the theories and paradigms of their time they continue to be important milestones in the manner in which the archaeology of the Ganga plains was comprehended. To conclude this consideration of the cumulative work at the site it is perhaps apposite to quote form their statement of 1980:

> 'In the light of the archaeological evidence which points to the development of urbanisation in the gangetic valley in a chalcolithic context which was rooted in the Neolithic cultures of the region, a fresh appraisal of the total body of evidence, taking into consideration the archaeological, Puranic and Vedic material, has become a desideratum'[45].

VI. Erdosy and the Settlement Archaeology of Kausambi

The story of the manner in which the archaeology of Kausambi has been considered in the period since 1980 is a story both of tremendous re-engagement as well as one of veritable inconsideration of the major thesis of the Allahabad University with which the previous section closed. Instead, through the work of one individual's major contribution of trying to establish the relationship of the major urban site to its surrounding countryside, a whole new body of evidence was produced and has subsequently come to dominate the manner in which Kausambi and indeed Early historic urbanisation are studied. George (now Mohammad Usman) Erdosy launched in 1981 a major program of settlement archaeology as part of his doctoral study aiming to raise an adequate dataset with which to answer questions of the nature of the growth of the site at Kausambi and its changing relationships with other sites in the region. Thus the study was one which focussed on the concept of Urbanization and aimed to raise such issues by conducted an intensive survey of the doab region of the Allahabad district. Erdosy's work was one of the very few projects of this nature which had been attempted in Indian archaeology at the time. His work is also appreciable for the fact that so much of it was published soon after as journal publications and thus did circulate amongst Indian audiences, the vast majority of which have not been able to see his full length monograph owing to its publication in Britain and very limited circulation. Erdosy's work though has become the standard entry point into discussion of Kausambi and more broadly even of the Early Historic and thus it becomes extremely important to evaluate it closely.[46]

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[45] G.R. Sharma et al (eds) *History to Prehistory: Contribution of the Department to the Archaeology of the Ganga Valley and the Vindhyas* (Department of Ancient History Culture and Archaeology, University of Allahabad, 1980)p. 74

[46] Erdosy, George (1988), *Urbanisation in early historic India* (BAR international series; Oxford, England: B.A.R.)

Erdosy set out with the stated conviction that 'the origin of complex societies can be understood with reference to urbanization'. In his monograph he provided a discussion of how the most effective way of generating information about the processes active in these cultural and evolutionary transformations was to take a long perspective on the emergence of the functional differentiation of sites with reference to changes in their size and locational relationship with each other. To apply this to the doab area of Allahabad district Erdosy conducted a jeep survey of an extremely large region. The value of Erdosy's survey and the data he generated cannot be underestimated nor can its value almost thirty years on be stressed enough. Erdosy, noted the obvious imperfections of the method in its ability to cover all the area it traverses but acknowledges that he adopted it for its effectives in generating data over a larger area than which could have ever been covered on foot in the time and with the resources which were at his disposal. Erdosy documented a total of 72 sites, almost 68 of which he appears to have documented for the first time. [47] Erdosy described his methods of characterising a site as follows; ground-walking was carried out by surveyors walking in parallel lines across the site in transects 5 metres apart. Erdosy's project thus involved an intensive program of the studying the surface remains of the site but we have no record of what proportion or on what criteria surface remains were selectively collected and can assume only the most diagnostic types were collected.[48] This intensive examination of the surface archaeology formed the basis on which the size of the site was delineated. Further, Erdosy's intensive characterisation of the scatter of artefacts enabled him to suggest how the site may have grown in size in different periods based on the differential distribution of materials in certain areas. This is an ambitious and as effective a manner of generating information as is possible about sites without excavation. It is on the basis of this data set that Erdosy constructed a rank-size diagram for the region and a hypothesis about the origin and growth of the site of Kausambi. Part of this evidence has been reviewed previously, and the rest which focuses on Kausambi will be treated in the next chapter with reference to the present survey data.

Two major methodological critiques can be made of Erdosy's methods and interpretation. While his survey was extremely successful in that it documented a large number of sites, it can be critiqued as an archaeological dataset with an ambiguous relationship to the past landscape. Erdosy himself described the limits of the traditional village-to-village survey method well, but the inability to comprehend what percentage or proportion of the ancient landscape has been covered leaves this

[47] In the effort of the preparation of this dissertation when Erdosy's sites were selectively revisited I found that many of his sites had been massively damaged or in certain cases completely destroyed and removed by more and more aggressive practices of land reclamation for agriculture and thus Erdosy's efforts constitute an invaluable record for the region.

[48] Sadly the survey materials could not be traced at the Prof. G.R. Sharma memorial museum and thus prevented any further re-evaluation of the data-set on those grounds.

dataset open to question. In the course of the preparation of this dissertation, a GIS was created which integrated amongst a host of other thematic data, Erdosy's sites for the region as well as local road maps. On the basis of basic pragmatics of a jeep survey, two areas which seemed isolated and not covered were then selectively investigated, again, by jeep survey methods alone, to see if even this level of coverage could generalize about them effectively. The brief investigations over a period of a week revealed that significant numbers of new sites lay unreported and that a fuller examination even by these methods could significantly alter the dataset.[49] The existence of many other such possible pockets which were not has motivated this discussion out of the need to put down how traditional methods also need to describe their manner of coverage. This discussion has not been intended as a critique of Erdosy's own project, which was as archaeological endeavours always are limited by resources and limits of the feasible. Rather, it seeks to qualify the idea that our present efforts at modelling past settlement patterns are predicated upon possibly unrepresentatively generated data.

While Erdosy's survey does constitute a good sampling it suffers further and far more debiltatingly from a deep bias which Erdosy brought with himself in his consideration of the archaeological cultures of the region. Erdosy argues explicitly that the protohistoric (including Neolithic and Chalcolithic) cultures of the region have little significance for the later developments towards the Early historic. Erdosy provides a review of the Vindhyan Neolithic and Chalcolithic cultures and provides a summary assessment characterising them as cultures displaying little evidence of hierarchy or social complexity. Further, Erdosy's consideration of the long-term historical trajectory draws substantially and critically upon the text-based meta-narrative of ancient Indian history rather than the archaeological evidence that he was considering. Drawing upon the well established Indological narratives Erdosy frames his narrative of the settlement archaeology of the region within a paradigm of successive movement and colonization of the region by waves of Indo-Aryans. The biggest problem of such an interpretative paradigm is the injustice it accords to the most exciting evidence of the region: that of the early levels at Kausambi. On the matter of these Erdosy considered the matter as follows: "It (Kausambi) has been extensively excavated and its earliest occupation claimed to fall in the second millennium B.C., though the evidence published so far does not support the view (Sharma, 1960, 1969). Until more excavations take place, as well as fuller

[49] In these two sectors alone I was able to report 5 new sites which have hitherto not been documented.

publication of such crucial areas as the Ghoshitarama monastery and the so-called palace complex, only the surface distribution of artefacts can be used as a guide..."[50]

Erdosy's distrust and under-consideration of the complexity of the published evidence can be placed in the context of the 1980s when it was still held that pre-NBPW assemblages in the Ganga plains were rare, if present at all and further when present were not very high up on the ladder of social complexity. These positions led to a tortuous situation when it came to considering what was on the ground. The efforts to relate the material culture to meaningful categories led to a major consideration of what the pattern of cultural evolution was in the region and for this Erdosy, while providing a succinct and studied consideration of the material culture, eventually turned to the meta-narrative and the textual traditions upon which he based his categories, his history and the manner in which he would frame the arguments his dataset produced.

Uncomfortable with the complex situation which was manifest at the earliest levels of Kausambi, Erdosy provides a succinct statement of which version of the archaeological consideration his evaluation was going to be based upon: 'Having already outlined the settlement history of a representative area of the Ganga valley, the information afforded piecemeal by the limited trait lists produced by piecemeal excavations can now be accommodated into a coherent framework, and will serve to refine our initial picture of cultural development gained from the regional survey. This can then be contrasted with the testimony of other sources. Within the survey region only the lower levels of Srinagaverapura (Periods I and II) yielded appropriate evidence, but this can be supplemented by the finds form Hastinapura and Atranjikhera... For convenience when discussing the archaeological evidence one may refer to this period as the early Iron Age (pre-ceding the large scale introduction of Iron tools), while in historical terms it may be called the Late Vedic period'[51]

Thus when confronted with the possibility of a still somewhat nebulous idea of a Vindhyan complex in the region at the base of its largest and most complex site, Erdosy chose to ground his survey in the quest for an OCP which had been 'identified' at Sringaverapura, the politics and reportage of which have already been discussed previously. The implication of this decision, based not upon an examination of the data at hand, is not merely superficial but has informed and structured his work greatly. The narrative Erdosy wields has an important and elaborate construction which shall now be described and commented upon. The archaeological narrative itself is seen a part of a jigsaw which

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[50] George Erdosy, 'Settlement Archaeology of the Kausambi Region', *Man and Environment*, vol. IX, (1984) also for a early summary Also see George Erdosy 'The Origin of Cities in the Ganges Valley' *Journal of the Economic and Social History of the Orient*, Vol. 28, No. 1, (1985), pp. 81-108

[51] Erdosy, George (1988), *Urbanisation in early historic India* (BAR international series ; Oxford, England: B.A.R.) p. 104 Thus today it is really unclear as to what actual diagnostic types Erdosy used to delineate period I in the course of his survey.

is not only geographical but also one which is directional and has beginnings in the movements of Indo-Aryans form Central Asia. Erdosy wields a marshalling of traits and singular pieces of evidence exactly in the fashion of the trait based archaeology much of his work has rallied against. In his climactic conclusion the change form burials to cremations in the Gandhara Grave culture, the occurrence of Vedic motifs on pottery from the Cemetery H culture and the fire-altars are all marshalled in conjunction towards the following statement: ‘Such intrusive elements with evidence of Iranian affiliation, combined with the survival of indigenous traditions, would fit in well with the picture derived from texts of the co-existence of two distinct ethnic groups in north-western India in the second millennium BC’. However, working in the heart of the Ganga doab does create a problematic situation for such assertions, and these are laid bare when Erdosy chooses to frame his discussion about the consequences of Urbanization which he sees as having ‘with the emergence of social stratification laid the foundations for all subsequent developments’. The injustice this does to even the idea of a processual examination of societies after the first century CE, Erdosy goes onto cast his discussion on the ‘Roots of Indian Society’, as a bipolar discussion between the native traits which showed only early levels of stratification and the major cultural contribution being that of the migrating Indo-Aryans. Erdosy then is led on to the million-dollar question of who is an Aryan, archaeologically speaking and his resolution of this question follows a model proposed by the Allchins, that ‘Aryan’ material culture in the subcontinent is crucially moulded by the people they interacted with at different stages. Thus, for Erdosy, the intrusive elements rallied above in the north-western parts are clear evidence of a non-assimilationist Rig Vedic period. By the ‘Later Vedic’ period, when these groups moved further west they have been assimilated as the painted gray ware for Erdosy at least, contains no Iranian influences nor does any other ceramic industry of the Ganga plains. His final conclusion is worth reproducing in whole here:

> ... even metal objects appear to have been indianised. Only horses are conspicuous, appearing in the Ganga valley in the early first millennium B.C. at such sites as Hastinapura and Atranjikhera. However, the replacement of inhumations with cremations, and the domination of Vedic motifs in decorative patterns, especially on the large number of terracotta discs occurring from the Early Iron Age onwards, reflect the usurpation of the ideological sphere by intrusive elements. Such a picture again corresponds to the pattern derivable from the literary sources regarding the nature of Early Iron age society. The evidence foe the existence of a distinct ethnic group, calling itself Indo-Aryan, may not thereby be conclusive, but it is sufficiently strong to call for further testing through much needed fieldwork. What follows here, however, is an examination of the internal dynamics of Early Iron age society, which led to the eventual rise of the Ganges Civilisation’[52]

[52] Erdosy, George (1988), *Urbanisation in early historic India* (BAR international series; Oxford, England: B.A.R.) p.104-105 It should also be noted that Erdosy considered the OCP and Copper Hoard culture as an indigenous Chalcolithic culture which formed the major indigenous population which the incoming Late Vedic Indo-Aryans interacted with.

This is a laboured reconciliation of a mass of different ideas and tropes structuring the manner in which data is being considered. The most major transformation of the cultural and ethnic traditions of Northern India and indeed of Indian society lie in an invisible hand, dealing in terracotta discs alone. Erdosy's manner of framing his own archaeological data then is bedevilled by an anxiety to conform to a meta-narrative which simply cannot explain cultural change without the role of a migrating Indo-Aryan group. The tensions become evident when Erdosy return to consider the indigenous element, of the Vindhyan cultures. What follows is a barely disguised version of an invasion and conquest hypothesis – the migrating groups which called themselves Indo-Aryans wielded different segments of society together into a social structure for the first time. In other words, the origins of true stratification, which is also the slow emergence of true caste for Erdosy — begins in the ideological manipulations of the later Vedic and culminates in the eventual emergence of the state.[53] With an almost cruel irony Erdosy makes incisive arguments against the reduction of a processual interpretation of societies to any one factor, even discounting demography as an invariable indicator. He argues that change is an internal process, which can be considered only by considering societies as a whole. His own interpretation however has barely had anything to do with the archaeology he has himself and so effectively conducted, the parameters of his history are textual, and his documentation of the archaeological process also arguably manipulated and usurped by the 'intrusive elements'.

Given this, if we return to the manner in which the survey itself was conducted there are surprises which emerge. Erdosy's distrust of the Kausambi sequence and his signal appreciation of the OCP as an indigenous Chalcolithic culture which was the mainstay of a well populated plains in the second millennia BC have already been stressed. Yet, when attempting to interpret the results of his survey and in identifying the survey finds, the type-fossils he invokes are an embodiment of the problems of dividing archaeological space and time into socio-cultural, evolutionary and ethnic binaries. In his historical vision change rides with the invisible arrival of the Indo-Aryans; who possibly may have assimilated into any cultural complex, But, it would not appear for Erdosy any culture does not also include those which he poses and understands as the substrata and the indigenous element, which was his characterization as the Vindhyan complex. These are the reasons for why the evidence from Sringaverapura were significant whilst not those from the Vindhyan region. The crux of his problem lies in the miscellany which constitutes his markers for period I. His types fossils for period I include both types from Kakoria and Rajghat, neither of which he considered as parts of the picture in most of his discussion. Alongside these is juxtaposed a type of the OCP as described in a completely different region – at Hastinapura. In the quest to demarcate and define the probable bearers of

[53] Ibid. p.126-127

tradition, where despite invisibility the OCP is accorded a higher pedestal, Erdosy thus elides away all the major cultural differences which are known for the region and had been clearly articulated and suggested in the numerous digests of archaeological reports which he had rightly, and roundly criticized. Further, his mixed bag of types are chained to a chronology which makes them perhaps the most disparate group ever put together. The Kakoria chronologies are by Erdosy's own admission known to begin in the second millennium BCE at the very least. The B&RW type cited from Rajghat is perhaps a type relatively confined to the broad time span but the OCP is hardly a ware which can be considered as stretching down to 600 BCE.

Given this sustained examination of the premises which inform Erdosy's interpretation and the manner in which he interpreted his survey findings, does his period I truly represent what he asks us to believe? Or given what this dissertation has interpreted for the Ganga Basin and its long-term trajectory of settlement development is it plausible to accept Erdosy's data as it is presented to us, especially now that a more complex pattern of the settlement of the Allahabad doab has emerged. In the absence of any ability to redress or revisits the Erdosy survey's curated materials his arguments for period I may perhaps have to be reserved for future judgement. The data on the subsequent periods suffers from what may be called the compressed chronology of the NBPW epoch and needs redressal on that front. Further a final point of serious criticism which can be levelled against Erdosy is the serious lack of a greater archaeological perspective in his survey. His interests were admittedly only in the Early Historic and upon the question of Urbanization and its prelude. However his documentation of sites ends at the period ending c. CE 100 and does nothing to document the site sizes by period of the obviously 'Kusana', Gupta and Medieval levels which he must have encountered and which were encountered when the present researcher revisited many of these sites.

In sum, the weight of the meta-narrative and of the expectation to produce a meaningful hypothesis which relates equally to existing paradigms of textual interpretation rather than those which were emerging out of both the survey materials and the trends of the regional material culture have seriously qualified Erdosy's survey. His text rides with the Indo-Aryans and his archaeology, it can be argued, disregards the 'indigenous elements'.

My account thus far has concentrated upon an examination of the most concerted and full-length research project which was conducted in the Kausambi region. Erdosy's work is significant not only for his tremendous efforts in the field, notwithstanding whatever the theoretical apparatus may have been, but also for the manner in which it allowed him to present his work as a major analysis of Early Historic Urbanization and generalize further on the theme. Much of that edifice is also based

upon such faulty foundations and as Chapter 3 has argued at length we can revisit the entire metanarrative extensively. I close this discussion here by pointing out that the traditions of Indian Archaeology too have not made piece with Kausambi and the manner in which I have characterized the earliest levels of the site here in this dissertation would still come as a surprise to many. The two volume *Encyclopedia of Indian Archaeology*, are in the historiography of Indian archaeology a major clarificatory and synthetic moment which sought to provide a definitive statement on many issues. Kausambi, clearly was one such and it is interesting that it was assigned to a third-party to arbitrate so to speak and not to a member of the excavation team or to a member of the Allahabad University. K.S. Ramachandran's account is perhaps one of the best texts which represents the dilemma's of the idea of the 'Chalcolithic' in Indian archaeology and the culture-historical paradigm it chains interpretation down to. Ramachandran's effort is based upon a comparison of published ceramic types, and he lists types which match across different sites, exactly the methods for which G.R. Sharma had faced such strong criticism. It is revealing that over 4 pages, which constitute almost the longest entry in the encyclopaedia for any single site, Ramachandran refutes many of the comparative suggestions made by G.R. Sharma but provides no statement on what the earliest levels of Kausambi may be taken to be. It is time Indian archaeology moves on from this unease and embraces the apparent and manifest diversity of cultures in the Ganga plains.[54]

[54] K.S. Ramachandra, 'Kausambi' in A. Ghosh (ed.) *An Encyclopedia of Indian Archaeology*, Vol.2, p. 212-215

Chapter 5 The Kausambi Surface Survey project

Contents

I. Motivation, Aims and Methodology

At the very outset it is important to outline why the idea of a survey was attempted and why it became an essential and central part of the effort to comprehend and understand the theme which had been selected. The motivations to mount a survey project stemmed from the conviction that

archaeology, as a discipline of past societies and their materiality stems and thrives from a study of these very elements and these traces to the past. A consideration of published materials alone, while an integral and often necessary exercise, can only be a part of any project which seeks to engage with and comprehend these societies. Equally, the consideration of what is our current state of knowledge and its structuring ideas and themes is an essential task, something which the contents of this dissertation thus far have attempted. Yet, in the quest to comprehend the full dimensions within which such knowledge has been produced an engagement with its essential and final context: that of the field, is necessary. The motivation and aim of the project was to generate new and meaningful data about the site of Kausambi by means of a systematic surface survey and contribute to the future study of the site in a meaningful manner. The inspiration for this was sourced not only from the complicated debate within which the site and indeed even its surface archaeology were implicated but also from several examples of such projects which had generated new and meaningful information about sites in other archaeological contexts of the subcontinent.[1]

While systematic and detailed surface surveys have been rare in Indian archaeology their use and their unrivalled ability in being able to generate archaeological information over large areas has been an integral part of research designs in almost all regional cultures of archaeological practice today – European, British and American included. By making detailed and controlled observations about the nature, context and distributions of surface artefacts it has been repeatedly demonstrated that important perspectives and approximations of the past activities and occupations can be captured and documented. The development of survey methodologies has been an elaborate, intricate and extended process which has centred upon the choice of the right methodology which would be most suitable to answer the questions which were being asked.[2] Equally the rise of geoarchaeological perspectives has often imparted an equally important component to surveys which focus attention on the role of the changing and dynamic environment and the role the interaction of forces of natural change and of the interaction of human actions, both past and present modify the physical landscape and thus impact upon the traces we seek to the past.[3] Surveys have also contributed immensely to a breaking down of the reified category of a 'site' and have brought attention to wider, more continuous presence and existence of the past over the landscape

[1] Lars Fogelin, *The Archaeology of Early Buddhism*(Altamira Press, Walnut Creek, California, 2006) . Monica Smith. *The Archaeology of an Early Historic Town in Central India* (BAR International Series 1002. Oxford: John and Erica Hedges Ltd. and Archaeopress, 2001) vi + 163 pp. 48 b/w maps, drawings, and photos, K. Morrison and C.M. Sinopoli, *The Vijayanagara Metropolitan Survey: Volume 1,* (Anthropological Papers of the Museum of Anthropology, University of Michigan.2007) other examples can also be listed

[2] Kowalewski, Stephen A. 'Regional Settlement Pattern Studies'. *Journal of Archaeological Research,* 2008, 16:225-285

[3] Wilkinson, T.J.. *Archaeological Landscapes of the Near East*. Tucson, Arizona: University of Arizona Press. 2003

which when studied and surveyed can reveal different aspects about the societies which created them than the study of a single 'site' alone.

Drawing on these significant perspectives and visions into the past, it was decided to plan and attempt a survey of the site of Kausambi and its immediate hinterland. From the very beginning, the task seemed formidable and the need to devise an efficacious and appropriate strategy for the site was paramount. The fortified and extant area of the site constituted a mass of multi-period ruins which were often mounded in excess of ? m above the level of the adjacent plains. Even a cursory examination of the nature of the ploughed fields on top of this fortified area presented an extreme density of archaeological materials. This massive and imposing tell was surrounded by a number of large and very small mounds which seemed to dot the area outside the fortifications. Given such a massive and complicated archaeological landscape it was apparent that under the means available a sampling strategy would be needed and it would be necessary to devise one which could answer to the questions being asked.

The survey was motivated by many overlapping and yet equally discrete concerns. Some of these arose out of the conviction that the surface archaeology of the site, if studied in some detail could produce results which could contribute meaningfully to our understanding of the settlement of the site, its chronology and its shifting or changing patterns of settlement over the vast of period of time which it was known to have been settled. Specifically, the survey was formulated to answer the following range of questions, which are listed here in the series in which the survey was expected to most plausibly be able to generate the data to provide answers and new perspective on them:

a) Does the site of Kausambi come to an end in the 'post-Gupta period', c. 8th century CE or is it occupied even later and if so, what are the nature and chronologies of its later settlements?
b) How does the site evolve over time, is it possible by surface survey to delimit and to suggest probable sizes of the site in different periods? Are the estimates as suggested by Erdosy[4] an adequate characterization of this process?
c) Related to and integral to notions of considering the site and its evolution itself, how does the fortified area relate to the larger landscape. Thus a major question equally was to characterize the nature of the occupations traceable outside the site and seek to relate those to those inside.

[4] Erdosy, George (1988), *Urbanisation in early historic India* (BAR international series; Oxford, England: B.A.R.)

d) How do processes of current land-use impact upon the site. Has the progressive return of the core of the site and almost all of the immediate surroundings to actively ploughed farmland created major issues in the study of surface archaeology.
e) Are there any particular and peculiar practices of landform modification or any other cultural practices which may influence the manner in which the surface archaeology of the site can provide insights into the past, i.e. do the current inhabitants actions modify our trace back to the past? If so to provide a rough ethnography of these practices so a documentation of these processes can begin.
f) To devise means and measures by which it is effectively possible to communicate the nature of the material culture encountered. In other words to not only record what was on the site but provide a more meaningful and quantitative description of the nature of the surface record. The aim of this was to generate the basic data to begin a methodological debate in such projects about how we can establish disturbed contexts and perhaps those of more chronological and stratigraphic fidelity. In other words at even such a complicated multi-period site such as Kausambi to inquire and establish trends to describe whether discrete scatters of chronologically associated artefacts do occur together or not and to devise means of describing and expressing this.
g) If such is the case then to seek to establish whether the diagnostic ceramic or other artefact types allow for a functional characterization of the area, i.e. to seek to differentiate between areas which may betray their past relevance on account of the nature of the archaeological materials present.
h) Especially if the former is not the case then to seek to establish the variance in trends of the surface distributions in the form of gross trends and use this to answer questions of where the 'site' begins or ends;
i) Further, the above described interest in this manner of investigation also sought to address a complex problem: that of the post-depositional fate of archaeological sediment for which plentiful ethnographic examples exist for its use as manuring and the practice is even surmised to have been a part of ancient agricultural regimes. Thus another major question, which related in part to those above was: is the presence of archaeological materials everywhere a marker of ancient use / habitation of that area? Are there markers of the use of archaeological sediment as manure in the Kausambi area? Is it possible to distinguish these on the basis of a characterisation of the trends of the surface archaeology of the region. Is there any measure by which disturbed locations can be identified regularly and precisely?

Questions from a more geoarchaeological perspective included the following:

j) Is it possible to address the nature of the landscape upon which the first settlers chose the site of Kausambi? Was the topography of the site similar to that which it is at present? Is it possible for a surface survey to contribute to an understanding of the relation of the site to the river? Does this change over the long period of settlement and is the relationship negotiated in any other manner?

k) To provide an ethnography, as it were, of the manner in which erosion, and its amplification by current land-use are impacting upon the site and its archaeology. To provide a description of the processes active in this and the manner in which they may be seen as contributing to the complications of the surface record.

l) To provide a documentation and description of the 'rampart' of Kausambi, especially as the last maps prepared was that by Cunningham in 1861 and 1865. To devise an apposite measure to try and establish how the rampart is associated with the site, whether it is constructed altogether, initially in one phase or whether it has many phases which are linked and if so how. Additionally to provide a documentation of its present status and how current landuse and current patterns of mobility are impacting upon it.

Admittedly, even at the start of the survey, this catalogue of questions seemed like a veritable mandate of seemingly divergent questions. Nonetheless these were motivated by the effort to produce as comprehensive a set of engagements with various aspects of the site as could be possible. Equally they were motivated by a concern that the engagement with the site, which was being mounted with the investment of much preparation and the investment of some resources should be as comprehensive as possible. Additionally, and most importantly, it was believed that the set of concerns raised above were all mutually connected and the ignorance if any group of the concerns above could blind sight all other observations from any other possibly controlling and significantly influencing factor.

It became clear that to address all these questions or any fraction of them and at the same time to cover any meaningful area of the site and even its surroundings would either involve a large amount of resources and maybe more than one season. Thus it was decided to experiment and devise what could be termed a sampling design which initially aimed to cover 50% of the area of the site. Sadly, soon after beginning it was apparent that with the resources available even this would not be possible and a decision was made to further scale back the coverage to sample 25% of the site. As

the current surveyor has had limited survey experience and this was the first survey he was designing and attempting to implement a number of trial surveys were attempted, in empty fields and in the area outside the fortifications during which no actual program of analysis, recording or collection was attempted – rather the aim was to devise an efficacious model with which the survey could progress. I was lucky to be able to have assistance in the form of casual archaeological labourers who were articulate, sharp-eyed and had the ability to endure the often seemingly pointless directives of needing to stick to a straight line and to learn to recognize and call out things which were hitherto mundane to them.[5] The trial surveys also posed as training grounds, in the course of which the assistants were instructed what were materials which the survey was interested in. How, context of the find, even in the ploughed field was extremely significant and needed to be recorded at all costs was stressed to the assistants and came to be an ideal which they upheld commendably through the course of the survey.

In terms of survey method, the trials experimented with the specifics of coverage in terms of transect spacing and specific means by which to translate what was being observed into a quantitative system which may capture variability in a meaningful sense. This proved to be a difficult task and one which was made even more challenging by the limits of what was feasible under the constraints of resources and time. The major challenge in the initial phases was with the massive density which was encountered, often surpassing that which had been qualitatively been observed at most other sites which had previously been visited. To implement a program which addressed the desired range of questions it became apparent that perhaps a range of different measures, simultaneously implemented would best suffice.

[5] I was also extremely fortunate to have been able to work with assistants who have in the past worked in some form of archaeological procedures. All of the assistants had been involved with conservation work at the Ghoshitarama over the last five years and were thus somewhat prepared for what the surveying task would involve and appreciated the often taxing and trying demands of an archaeological operation.

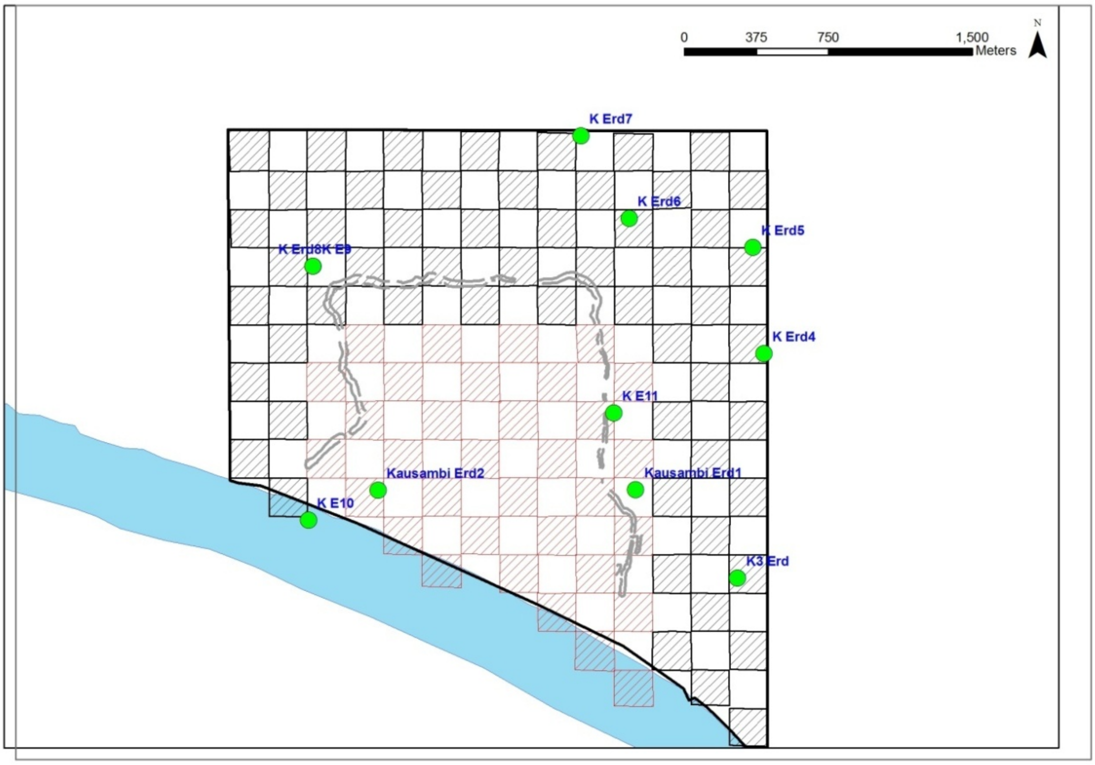


Figure 5-1 Map displaying initial survey plan which was designed to cover 50 % of the total area and encompass all known mounds in the immediate vicinity of Kausambi. The outline of the rampart was generated during the course of the survey and is accurately depicted. This basemap shall be used for the preparation of all maps in this chapter.

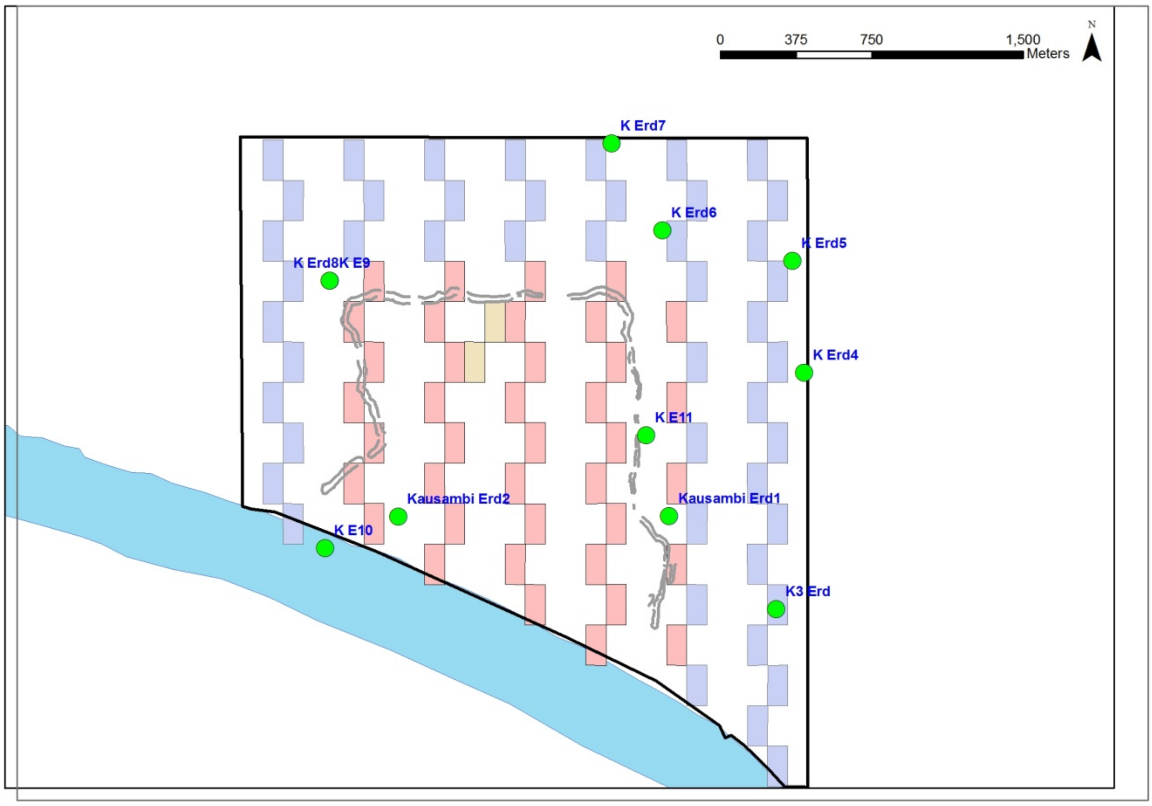


Figure 5-2 The actual coverage by the survey. The blocks in pink mark those designated as the 'Core' area and those in blue as the 'Outer'. The 'Tan' coloured areas are those which were additionally covered.

The basic unit of the survey was defined in the form of transect blocks, which initially had been designed in the form of a grid of 4 ha each out of which a systematic unaligned sample would be chosen for actual groundwalking. This grid was centred upon the 225 hectare area of the fortified settlement and extending on all sides, except the south where the river flows, to cover a total area of 900 hectares or 9 square kilometres. The initial survey plan was to cover 50 % of the total area, but owing to unavoidable limitations this had to be scaled down to 25 % of the total area and this was implemented by reducing the survey transect blocks to an area of 2 Ha each, thus the number of blocks remained the same as did the broad geographical pattern of area surveyed. With this sort of a plan 42 2-Ha transects fell within the fortified are and were designated as 'Core transects' and another 47 transects fell outside and were designated as 'Outer transects'.

Within these the following protocols for study and trial were adopted. Initially we experimented with transects spaced 5 metres apart and found that surprisingly, at least in the experimental areas, we either hit the same sort of mixed materials or the same class of materials. While this would have perhaps been the most satisfactory form of coverage it simply was not possible under the means available and also perhaps was better addressed towards a different form of inquiry. To match the survey intensity to the areas that was desired to be covered proved to be a choice born out of the necessity to compromise. After having experimented with ten metre spaced transects, which were amenable to covering larger territories, we had to eventually settle for transects which were spaced twenty metres apart. As is obvious on a mound and a context as densely populated as Kausambi this amounted to a survey where the area even within the transects blocks was sampled. This is something which is perhaps a manifestation at some level of every survey but must be externalized here for an accurate description of how the project actually covered and dealt with the mound.[6] He protocol followed here was simple at every 10 steps each of the surveyors would halt and call out all that they had been able to spot in a zone which approximately covered a metre and a half of either side on which they walked. It must be stressed that the trial runs and the training sessions were vital to the success of this part of the project and the effort which the assistants put in was critical to the success of the survey. The training had involved a perhaps all too obvious program of stressing that the survey was not merely any hunt simply to recover terracottas or beads or objects which tourists to the site typically fancy but rather was concerned with more mundane objects. The surveyors had been introduced to and shown and allowed to handle a range of ceramics during the training session, some of which were sourced from other sites in the Kausambi area (see Appendix 5) and

[6] I am deeply indebted to Andrew Bauer for a series of long discussions on survey methodologies and praxis and for highlighting this point in particular about the need to stress what ground was actually covered.

were thus acquainted with both the Names and the objects symbolized by them such as NBPW and Glazed wares. It proved far more difficult to try and train the assistants to distinguish between the multitudes of often eroded red wares which plague the surface archaeology of most gangetic sites. But as detailed a program of instruction in the decorated types based on published materials and collected samples was undertaken and the need was impressed upon them to call out the finds of such objects and to look carefully for them. The progress initially was slow in this front, but by the end of the second day everyone was spotting more decorated types and unusual pieces than had been published for the site!

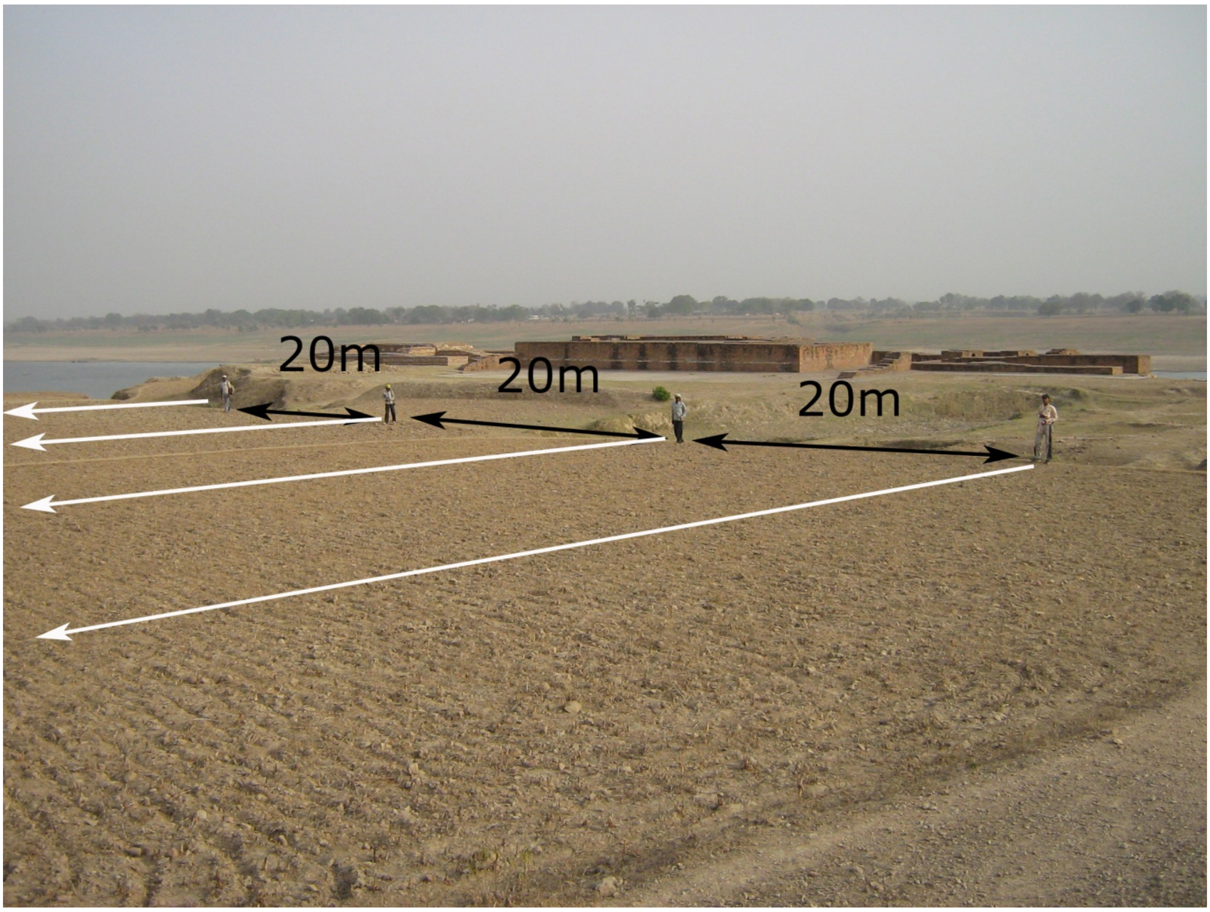


Figure 5-3 Illustration depicting surveyors at the start of a transect and the manner in which the territory was covered.

The issue of other artefact categories, namely lithics of any form, terracotta objects, bone and anything else out of the ordinary were far easier in establishing a control and method on. It was equally easy to begin with a program where any relict structure, whether exposed on surface or in section was a necessary thing to communicate, subsequent to which it was both described and photographed or additionally it was quickly sketched as well. The effort to try and stress the need of pointing out geomorphological and erosive features proved to be far more difficult as it was both difficult for me to communicate this and for the villagers to signify it as something different from

markers which they had hitherto considered as natural or in an unremarkable form in their understandings of the landscape. Nonetheless, many of these features were simply massive and as we came to realize were more a hazard and a problem in the attempt at walking straight lines rather then being features which could be missed. At each major erosional feature a quick demarcation of its extent and a quick inquiry into the rate of its progression and efforts made to check it was made and recorded. Valuably all of these present an opportunity to study the stratigraphy of the site. In the interest of time, often such sections were merely described and we moved on, but at others it was decided to sketch some of these and provide a better representation.

The manner in which these observations were verified and recorded proved to be a herculean task given that there was only a sole recorder present. This and the fact that surveyors were twenty metres apart often made communication impossible across the whole end to end distance of a hundred metres, especially in the afternoon sessions when the *loo* wind was howling. In many ways this was perhaps a blessing as although it made the process of survey time consuming it transformed these transects into veritable crawl surveys. The assistants were instructed to cover the ground as effectively as possible and were asked to stop every 10 or 15 metres. In a cyclical form, I the recorder would move from surveyor to surveyor, listen to their report and see the specimens they had highlighted and choose to record them appropriately. These recording strategies involved either noting what had been found, by photographing them at the spot or by collecting them in exceptional circumstances. (The collection strategy shall be detailed explicitly below). The surveyors were impressed upon the need of not removing sherds or artefacts from context unless extremely necessary and were asked to mark the locations of where they had picked up even a single sherd so that it could be returned to the site, as close to their findspot after it had been considered. This exercise more than anything else was the source of most discord and exasperation amongst the survey party but was by and large adhered to throughout the whole survey. Admittedly, this was a bit difficult a program to maintain and often served only to prolong the exercise but it was one which was aimed at trying to make sure the survey did not add to or altar the background noise level of disturbance by ploughing and other regular activities which impact the surface artefacts.

The mutual arrangement of the assistants was kept common for two reasons, firstly this helped set a rhythm and allowed for them to build up an understanding and try best to walk straight lines and judge the distance of twenty metres from each other consistently. The second reason relates to the second protocol of the study, which necessitated that the same person walk the central transect line. Along this line at approximately every 20-30 metres (the adjustments were necessary more often than note owing to features like field boundaries etc) where the central surveyor, Kuldeep, was charged with an additional responsibility. At these locations he would quickly lay down a 1x1

metre grid where he would then squat and count all cultural material which was on the surface. If the top soil was loose and recently ploughed, objects smaller than a thumbnail and partially buried were not counted and but those which were larger and partially buried / embedded were. The classes of artefacts counted most commonly were bricks and sherds, which in itself formed a formidable and time-consuming task. Additionally while sherds were note generally differentiated by period, the distinctiveness of the NBPW and the ability of Kuldeep to unmistakably identify it, allowed us to count these separately wherever present. In addition materials such as slag and lithics were also when present counted separately.

The effort of this study protocol was to generate a gross trends dataset, a dataset which could answer to the questions of how dense is dense when we are on site? Further it sought to answer the following question as well: what is really the measure and variability of the gross trends in surface artefacts.[7] Such a protocol helps us answer the questions of whether all parts of the fortified area really constitute part of a 'mound' or an area once 'settled', questions which had been raised about the site.[8] The most useful part of this study protocol was its intended purpose in being able to provide a means of comparing both the nature of the settlement as well as the impact of modern and previous landscape modification upon the gross trends of the artefact distribution across the landscape. While these discussions shall follow below one of the most important aspects of this measure is that it provides an index for communicating what constituted on site and off site parts of this nine square kilometre region and additionally it is also the entry point into considerations of the possibility of ancient and modern manuring practices which involve the redistribution of archaeological materials.

The effectiveness of the second protocol was its delineation of the gross nature of trends, and apart for the NBPW it was not designed to yield any information about the nature of finds. The recording as part of the first protocol, no matter how effectively pursued would also have remained a somewhat anecdotal form of description. To address the issue of just how did the artefacts on the surface in any one given area associate with each other on account of period and other inter-relationships such as being parts of the same whole or in being possibly functionally related a third and most ambitious protocol of study was attempted. This involved laying down an area of 100 metre square area, done in the form of a circle, in what was designed to be a systematic unaligned manner across all grids. Within these areas, designated at Assessment locations /spots, the initial

[7] This was a measure sought also to produce some data which could communicate densities in absolute terms, so as to be able to communicate what the nature of the site and its massive density really was.

[8] Erdosy, *Urbanisation in early historic India* had published a series of maps presenting his notions of how the surface assemblages could be used to document the extent of settlement in different periods. In this notoriously the North-western sector was left as unmarked and Erdosy proffered no explanation for why a zone within the fortifications had been earmarked as being not settled in any period.

protocol was to collect all archaeological material at one location and then proceed with the following sorting order: All Bricks and brickbats, all tiles and tile fragments, all lithics, all pieces of any kind of manufacturing debris, all terracotta objects, any pieces of slag and any other miscellaneous item were all separated into their own categories. These were then counted and each category was weighed independently using a simple industrial strength hand held spring balance.

The sherd sorting procedure was slightly more elaborate although it remained compromised by the fact that by design the survey was dealing with unwashed sherds, and that too in the field. This decision to process even the sherds in the field was born out of two concerns: it was not intended to remove any materials more than those deemed necessary or worthwhile for a future plan of study from their original context. Further, the idea behind this protocol was to establish the nature and fidelity of the surface archaeology and the current protocol served that purpose, whilst anything larger would have required a commitment which was larger than what this dissertation could propose to achieve and complete. Once all sherds were collected they were sorted utilising the following procedure: all diagnostics were isolated and set aside. Within the body sherds any sherd with a design visible was scanned for while the following division was made, thick sherds which looked like the elements of a large and sometimes massive storage jar were sorted to one pile while the rest were sorted for any 'fine' sherds amongst what could otherwise be termed thin. The dividing rule in this sorting was kept at 7 or 6 millimetres which was initially randomly checked with a vernier callipers, but could soon be based primarily upon the 'feel' which was also easy enough given the usually more than distinctive fabric of storage jars. Additionally in the course of this sorting process, all base fragments had been sorted out to a separate pile as well. All these piles were subsequently counted and then weighed for each category.[9]

The protocol of study also entailed that while these various artefacts category were being counted and weighed the diagnostics were sorted into the following broad classes. It must be made explicit here that no attempt was made to define a quantitative typology and instead the more intuitive typology which has traditionally informed the study of north Indian assemblages was used in the understanding, selection and use of these categories. This program was attempted only because of

[9] Even while studying curated materials and preparing for the survey based on a review of published ceramic information for the Ganga valley sites it was observed that there exists hardly any information or strategies to diagnose simple body sherds into their respective wares in a regular and reproducible manner. The problem arises from the general disinterest in following a analysis program which would have defined wares on the basis of variations in surface treatments on both external and internal surfaces and on the basis of the constituents of the paste. Thus, while a general and usually verifiable set of observations about ware classes do exist they cannot be generalized as there are many uncertainties, especially when considering the mass of different 'red wares' which succeed upon one another in the period after the NBPW. Given these complications, and given the fact that this assessment was proposed to be carried out 'in field' the idea of contemplating anything but total number and mass trends for body sherds was dropped.

the invaluable opportunity I received at the Prof. G.R. Sharma memorial Museum where, for the month prior to the survey I was allowed to study the ceramics from the Kausambi survey. This allowed the metrical measurements (rim, lip thickness, rim height and diameter) of many of the distinctive types and in some cases for many examples and variants of the same. Additionally the opportunity to handle large amounts of pottery allowed the observation and formulation of several more subtle markers in change, particularly in types such as the handis and the basins which I had expected to find in large numbers. In addition there seemed to be the possibility of differentiating between the generic and most numerous component of many of the globular pots of the later period red wares if the manner of the decoration of the neck portion of the pot was considered. Thus, in addition to all and any decorations, special attention was focused upon such fragments, their and the other ceramics contexts they seemed to be associated with.

Based upon this it was attempted to code the sorted pile of diagnostics vis-a-vis the major documentation of forms which had already been done for the site in the form of the two major excavation reports in which the total number of forms published amount to -----. Additionally there are known forms from Kakoria and Koldihwa as well as Kotia which were possibly expected at Kausambi. For the ease of coding these, a bound folder of the Xeroxed copies of these illustrations was prepared and carried into the field, along with select annotations to allow for the easiest consideration. As an added measure the ceramic from Rajghat and Hastinapura were also included although the lack of first hand experience with either would have probably been a cause of unsure attributions. If a type did not seem to exist it would be coded with as seemed best fit to a class or as a don't know/can't say and a description of the rim given as per the only standardised published method of description as given in Dales and Kenoyer's work on Mohenjo-Daro.[10]

This protocol was time consuming and tiring for all members of the survey party. The weighing of bricks turned out to be a task of mammoth proportions and was quickly scaled down a count and weighing of only the central 1x1 metres square area. Additionally severe complications arose in the ceramic coding scheme as we came to be confronted by a huge medieval deposit the type of which we were partially unprepared for. However, within the first two days a coding scheme for sections of the medieval assemblage, especially the distinctive and profuse massive storage jar types was devised and coding continued on that basis. The recognition of this category also turned out to be significant as it was probably associated with the larger than expected and almost uniformly high proportion of thick and coarse storage jar type sherds that were distributed extensively. Further complications arose with certain such assessment spots presented such a massive density of sherds

[10] Dales, George F and Jonathan Mark Kenoyer, *Excavations at Mohenjo Daro, Pakistan : the pottery* (Philadelphia : University Museum, University of Pennsylvania, 1986.)

and even in one case of stone chips that it was simply impossible to collect them all for such a purpose. In this case we followed the procedure of picking up randomly one for every two that were visible and thus worked with only half the data. Further, owing sadly to the restrictions of time and energy the area of the assessment spots had to be reduced for the assessment spots which were attempted in the outer transects and thus their data is comparable to the inner only in terms of averages per metre square. To maintain a record a selection of the diagnostics was photographed before we the survey team moved on to the next set of transects.

An additional survey problematic was encountered within the first few days when we began to encounter what appeared to be low density and seemingly continuous patches of NBPW. There would be between 1 or 5 sherds in every one metre square but such a variable distribution could extend, generally along the lines of the furrows, for a length of about 10 to 20 metres. It was also observed that determining the NBPW densities would be subject to additional measures of taphonomy. The nature of the fine ware itself, particularly its nature to shatter like glass into small pieces on account of the well fired and thin nature of its walls, was responsible for sherds attaining an average size which could easily leave them buried under the loose silts and loams which dominate the area. Thus the following strategy was devised to estimate NBPW densities: once a surveyor encountered such a distribution he was instructed to walk another 10 metres in the direction of his transect and count all pieces that he encountered in this 10 metre walk. Alternatively we also tried to lay 1x1 metre squares but they seemed not to be able to overcome the manner in which the NBPW distribution could vary massively in the space of just a couple of metres depending on local burial and exposure.

Dealing with the rampart constituted an additional challenge. The digitization consisted of a walk along the highest point of the rampart at all points and noting which sections were under cultivation, were still unfarmed and which were now under the possession of the forest department and have been mostly planted with acacia plantations. This effort was linked to the second part of this exercise in which two surveyors walked parallel to the recorded walking in the top of the rampart, one each on the inside and the outside of the rampart. They both called out the respective cultural finds and these were observed and noted at a distance of 20 metres or one of appreciable change. On the exterior a number of additional features were of considerable significance and were duly noted: the presence of erosional patches of brick robbers pits were clear indicators of the existence of a brick faced revetment which had been since buried. All such occurrences were noted and further the nature of the deposit which seems to cover the brick revetment was studied and sediment samples collected especially where they had been loosened out and even excavated in places such as complexes of fox burrows which are occasionally evident on the rampart. As a last

measure on the inside it was attempted to consistently document whether there was any habitation on the outside, especially on the stretches which had not otherwise fallen in a survey transect. This last procedure was repeated with an aim to establish what was the nature of the ceramic industry or cultural assemblage which seemed to occupy the highest levels adjacent to the ramparts in the interior of the mound. Additionally a reckoned measure of the relative height above both the interior and the exterior was recorded for a number of locations along the ramparts.

The collection strategy throughout the survey was a minimalist one and was carried out in only exceptional circumstances. The idea guiding the collection and removal of artefacts was the following: despite the massive and detailed archive of materials at the Prof. G.R. Sharma Memorial museum, the range of ceramics and other artefacts in particular would probably exceed even that collection as even excavation, is of course an exercise in sampling. The aim of removing few diagnostic sherds from context was aimed at supplementing the known collection with diagnostic types of other wares which had been not documented explicitly, not encountered or their variability subsumed within the single post-NBPW period of the first volume of the Kausambi report. Thus, the aim of the Kausambi survey's ceramic collection was to round and complete the known sequence of ceramic assemblages at the site. Additionally, as this is one of the major objectives of the survey it was felt necessary to provide a small sample of the types which were being described to provide for future examination and revision of the hypothesis made here. The collection strategy on the frequent finds of other small terracottas was motivated by the fact that over 6,000 known such examples have been removed from the site and yet the context of any of those from within this massive zone is not known. While we did not expect to find many terracottas or fragments the survey expected to use such artefacts, which on account of their distinctiveness are often easy to periodize as an additional index to test the manner in which materials were being exposed. In other words, terracottas were to be utilized as another form of type-fossil to examine the fidelity of the surface scatter and the chronological inter-relationship of its various periods. The collection of such fragments was based upon two motivations: of a fuller documentation of these fragments than could be readily afforded in the field and further the value of these for any further study which would desire further examples of such artefacts.

A third category of artefacts resolved around the variability of production debris that is often found at archaeological sites and labelled often generically as slag.[11] The collection and fuller

[11] Erdosy, *Urbanisation in early historic India* had noted an extremely dense collection of Iron slag at a small are in the North-Western corner of the site. Unfortunately he did not detail this exact location nor does he document whether these materials were collected or not. On the basis of my survey of the region, where we encountered only moderate densities of Iron slag I would argue that Erdosy's valuable documentation of the

documentation of such artefacts was intended to build towards not only a fuller documentation of these production remains but also build towards a collection which could then be subjected to more detailed technical and instrumental analysis. Another related concern was that with lithics in the survey zone. Lithic utilization patterns in the larger Kausambi area are known to have been diverse and distributed over a extremely long chronology ranging from the acheulian to the early historic for purposes as varied as handaxe[12] to bead production. The collection of some core and artefactual nodules was motivated by the concern to begin with a program of identifying more specific sources in the trans-Yamuna Vindhyan zone which these are clearly brought from. Another part of the lithic study was intended at documenting the range of the sandstone used at the site so as to inquire similarly into their utilisation and the sourcing of these stones across periods in time. Very few sandstone were actually collected but those which were have been described in terms of their distinctive attributes.

At two assessment locations larger collections of the ceramics were made, so as to be able to enter into a fuller discussion of the matter of the inter-relationship of the surface artefacts and to demonstrate the limits of what sort of analysis could be performed on them. In the region outside the core fortified area of the site, ceramic materials were collected from a larger number of zones, especially those which were under severe threat of being wiped out by massive landscape modifications in the wake of expansive agricultural practices and in some cases severe erosion.

The manner in which this survey was conducted and the aims with which it approached the archaeological landscape, necessitated the need for a comprehensive, regular and detailed recording strategy. A form was thus designed (see Appendix III) and was filled out for each transect block thus enduring a regularity of information collected from all zones. This form was supplemented by sketches of sections and features wherever deemed necessary and carried out feasibly under the limitations of time. The survey would have been impossible without the use of GPS technologies and a simple handheld GPS was the primary guide for all parts of the survey programme, including getting on to transect zones, identifying and recording assessment locations and also most importantly for providing a context for all artefacts considered and removed from the site. For this purpose a Garmin eTrex Vista HCx handheld GPS was used which uses a high-sensitivity protocol to consistently give locations which are of the range of ±3 metres. All the survey data was downloaded and used to create a GIS based documentation for the survey and its coverage as well as for the means of preparing the catalogue for the artefacts. This GIS database was built in ArcGIS 9.2 and has

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production centre may in fact have been a medieval deposit, as that seems to have been the general dominant deposit on the surface for the region, a fuller discussion of which is given below.

[12] Acheulian tools are known from the section of the Yamuna about 8 kilometres downstream from the site of Kausambi

been the basis for all maps prepared here. As an additional point of clarification, the survey was conducted in the UTM (Universal Transverse Mercator) co-ordinate system instead of the traditional latitude-longitude for many reasons. The most prominent of these was the fact that the co-ordinate space of UTM is metric rather than based on degrees and seconds and thus allowed one to cover metric spaces of hectares and clearly base transects accurately on an absolute measure rather than a more relative one. Additionally the use of UTM allowed the design of maps for each transect which were printed and taken into the field along with the form and allowed a quick and ready reckoning as well as sketching in of the prominent landscape features of each transect as an aid to recording the materials the survey encountered.

The survey was additionally tremendously bolstered by the ability to have prepared itself with the consultation of remote sensing data of various kinds. Shuttle Radar Topography Mission (SRTM) elevation data provided one of the most useful guides to the trends of relief in the general area, of which a detailed contour plan is still not available. Landsat ETM+ data and the free of cost Aster reduced data products were used to prepare a preliminary understanding of the land-use of basic land-cover of the area as well as build towards an understanding of the different geomorphic components of the region. Most useful however were the data from the IRS P6 panchromatic and the IRS LISS III datasets, which were provided by Prof. Onkar Dikshit of the IIT-Kanpur. These allowed for a more detailed consideration of these issues and much of the discussion of relevant issues below is premised upon observations made from the classification of this data. An additional resource was kindly provided by the lekhpal of the Kosam Inam and Chak Ailai revenue mauzas of the Kausambi district; these were the naksas, or hand drawn maps which delineate all recognised field boundaries and helped tremendously in the manner in which this survey could understand and comprehend the dimensions in which the modern agricultural land-use impacts upon the surface distribution of surface artefacts. Additionally as all the survey assistants were inhabitants of the largest village on top of the mound of Kausambi, Garhwa, their local knowledge about landscape modification; items transported on and off site and their ability to introduce me to specific field owners when the occasion arose for more detailed information were invaluable and contributed tremendously to the survey.

All of these inputs contributed towards what was envisaged as an extensive program of observing and documenting patterns of landuse currently displayed at the site and understanding their role in the manner in which we can hope to approach the archaeological landscape today. The fact that the massive demographic rise and the technological modernization of Indian agriculture in the post-Independence era have created tremendous problems and modifications in the archaeological landscape is a commonplace observation but it is not one which has been provided any manner of a

description not have there been any efforts to address how we can understand and model these processes and begin towards understanding and accounting for them in our measures of the ancient landscapes.

Planning for the survey was an exercise which took a large amount of time and was a difficult one, especially given the ambitious nature of the exercise and the fact that this was the first such attempt by the author. While it had been hoped initially to mount the survey in the brief post-monsoon period, this was not possible and the survey had to be postponed at the time. Happily enough, the survey was mounted at a time when conditions were ideal if a bit severe in terms of climate. The survey was carried out in a period of 25 days spanning the months of May and June. While the weather was forbiddingly hot and necessitated a break from about noon to 3 PM it was by far the best time for the survey to have been mounted as the landscape was absolutely desolate and bare and the entire area which is currently agricultural land was bare and open to survey. The summer dry season was much better for the survey than the brief post-monsoon winter window as only some parts are cleared briefly at that time, and that too before a winter crop is put in. Much of the area is planted with lentils like arhar (*vigna mungo*) which are planted in August / September are harvested only by the end of April or May. Thus by beginning in the end of May and by enduring the June sun we were able to survey freely, had the best visibility conditions and were able to survey without any threat to anyone's agriculture and livelihood.

In addition to this structured period of survey the descriptions and observations below are also based upon a series of visits not only to Kausambi but to many other sites in the region which were carried out in September-October 2007, January 2008 and in the period May and June 2008 as well. Upon the completion of the transect blocks 2 days were spent at Kausambi walking through selected areas, which had not been in transect and more casually evaluating them as to whether trends were not greatly different from what had been encountered in the sampled area.

The purpose of providing this extended discussion of the manner in which the survey was planned and implemented was not only to enter into a discussion of its major concerns and objectives. This extended and full length description of survey methods was also motivated by a concern to leave a full record of what was attempted and what was covered. The description of both of these is extremely necessary as is no longer clear whether Erdosy's ground survey actually covered the entire fortified area, and whether ground walking here had proceeded with a 5m transect interval and further we have no idea of his collection strategy and thus very little idea of how his survey has

impacted the surface distribution.[13] The discussion above has tried to make sure that such an experience is not repeated for the site again.

Having laid the survey methods clear, the next sections shall in a series of thematic measures discuss the many range of insights the survey provided into the site. The first of these shall discuss the manner in which the archaeological landscape and its distributions are actively conditioned and reproduced within a landscape that has never really been deserted or fully abandoned. The section after that considers the setting of the site both in the present day and what can be addressed of its past environments, particularly with an eye to understanding the relationship of Kausambi with the Yamuna in its various phases. Implicated within this is the discussion of the nature, construction and present condition of the rampart of Kausambi and this is the subject of the subsequent section. The next section shall detail the results of the multi-pronged ceramics project of the survey and attempts to synthesize data from the large number of total sherds which were processed in the field. On the basis of this synthesis the next section puts forth a picture of the manner in which the site at Kausambi evolved through different periods, integrating together data from both inside and outside the rampart. The subsequent section provides a discussion of a few key details of small sites in the hinterland which were encountered during the course of the survey. Finally a last section evaluates the evidence from discrete artefact scatters which suggest special areas of production activities and documents the finds which were yielded at these locations.

II. Locating Kausambi in its presents and pasts

The first step to understanding Kausambi is to locate it, not only within its present context but also within the past dimensions of such a larger setting. By this 'larger setting', an active landscape, as constituted and continuously reconstituted by agents natural and anthropogenic is envisaged and the following discussion attempts to delineate aspects of it which are usually neglected in archaeological literature. Much of the observations of Kausambi have commented upon what is referred to as its 'intactness', a measure of awe in many ways at the vast area which seems to be almost tell-like in its dimensions as an archaeological deposit. The vastness and largeness of Kausambi is something that has struck all visitors and makes a deep impression. As one approaches the site, even on the modern road, the site is visible from a range of upto four kilometres away, its

[13] We do know that Erdosy did count and weigh some materials, as well as collect some slag. This is known however only from Erdosy's acknowledgements which document that survey materials were analyzed at Allahabad at the end of the survey with the assistance of members of the Allahabad University.

ramparts rising high above the fields. The name of the village that sits on top of the mound memorializes this in its name – Garhwa or Fort.

Amongst Cunningham's many levels of documentation one which is particularly valuable is his note that the area within the ramparts was mostly just an expanse of barren land littered with a great density of bricks. However the process of turning this land into agricultural land, as Cunnigham notes, had just begun. We have no clear indicators of this process by which the land was 'returning' to being under the plough from the pre-Independence era visitors but it appears from aerial photographs of the 1950's that by then almost the entire area had been carved into small agricultural plots. Since then this process has only witnessed further extension as the population of the villages which dot the landscape of Kausambi today has risen and increased the demands on the land. As agricultural activities involve a range of ways in which they affect not only surface distributions but reconstitute them in the act of ploughing and other modifications it is important to consider these at some length.

Most agricultural land within the ramparts belongs to owners who reside in Garhwa however, a substantial fraction is also held by residents of Kosam Inam, a trend which seems to have historical roots in the Mughal or Late Medieval land settlement of the area. This area was never affected by the chakbandi or land consolidation movements of the 1960's and 1970's and the slow but continuous rhythm of disputes and inheritance has only increased the fragmentation of land. Thus the majority of land holdings are somewhere between 0.1 to 0.3 Hectares in area and allow for a farming which is a vital component of domestic consumption.[14] No one that I encountered and interviewed during the course of the survey knew of any produce ever being sold to the market. Additionally, owing to accorded status of the entire fortified area as a 'site' although technically only the excavated areas are protected by the ASI, the use of tractors to plough the land has been disallowed in general. The village of Garhwa and some of the other neighbouring ones, lie in an isolated stretch of the newly formed Kausambi district and infrastructure here is basic and rudimentary, often in contrast to the pace at which these services have been provided to other areas of the same district. A very important factor which has impacted the rate at which landscape modifications and agricultural modernisation has proceeded is the availability of electricity. For long the supply of electricity to the village of Garhwa upon the mound, was considered to be in a technical gray zone as the whole area was an archaeological site. About a decade and a half ago, permission to lay electricity lines had been cleared but due to administrative apathy nothing has materialised although all villages in the outlying area do have existing connections. The

[14] At the same time most land is held by a few families in the village and the landownership trends, as elsewhere in the area, show a marked distribution by caste groups.

archaeological significance of all of this is that both the opportunity to and the motivation to conduct any large scale investment in agriculture has been lacking. In specific terms, the most common procedures of enabling better agriculture have been the removal of earth which was either tedious to plough on account of artefactual density or the installation of tubewells. As observed at other sites, particularly those of Paschim Salraha, Kotari Purab and Sudhwar Kamalpur, the installation of tubewells can be a massive agent of destruction and change at an archaeological site. Under the aegis of a development scheme of the state government administered at the Block level several villages have been able to secure financial assistance to sink tubewells to allow for irrigated agriculture and thus both better production and different crops. In the cases of the sites mentioned above this tubewell was installed on the very top of the mound and the pumping of water out onto the mound has meant erosion of a scale and order which was otherwise completely unprecedented. While there are no ways to quantify this, archaeological sediments of up to a metre have been stripped away largely by just forces of drainage, and the materials mined by the flowing water accumulate in the streams cut to transport this water as large deposits, which even have to be removed occasionally to allow the continuous flow of water. In the Kausambi region while tube-wells have not been allowed in the fortified area a few have been sunk in the neighbouring areas and have permitted a completely different agricultural cycle, including a third crop sown and harvested in the peak of summer.

Generally, the agricultural cycle in the Kausambi sees the typical two-crop cycle common to Uttar Pradesh. However the Kausambi area itself is peculiar on account of the fact that it is not part of the rice-wheat cycle which the dual cropping regime has increasingly become. The main reasons for this are the fact that the canal system in the area has remained at some distance, although recent efforts to provide a cut have drained some waters in the areas to the west of the fortified area. This general unavailability of water is a fact which is gravely accentuated by the considerable height of the mound at Kausambi which renders any form of canal irrigation ineffective. Thus, principally for reasons of a technological lack of the ability to provide for irrigated agriculture, unlike more than half of the sown area in the district the still prominently mounded areas of the Kausambi district do not come under the rice-wheat cycle. Instead they are limited to dry and rain-irrigated forms of agriculture which prominently sustain only *chana* (horse gram), *arhar* (vigna mungo) or mungo (vigna radiata) and follows a different cropping cycle especially in the case of arhar. This is a situation which most people I spoke to lamented and wished they could change, for while these are important and necessary foods they are not valued ones like rice or wheat and most people wished that if it were possible they would have liked to grow these for domestic consumption rather than having to incur the expenditure of buying them.

The desire to do so has meant that even local topographic depressions, which are merely undulations at the foot of the rampart within its bounds of other such local features, have been expanded and consolidated so as to provide for a situation where these areas can hold the most amount of water in the rainy season and provide for a rice crop. However, even at the time, the amount of water which collects in these depressions is not substantial enough to allow for a successful crop each year. The winter rains are similarly unreliable on this front when it comes to planning a winter wheat crop in the same areas on their basis alone.

The situation outside the fortified area is considerably different as owing to the lack of protected status and the generally lower height of mounds. The availability of electricity and the canal system. And the large and extensive nallah to the east of Kausambi has in recent years been linked with a branch of the canal system and has in conjunction with the use of electric pumping sets, allowed for a more extensive shift to rice-wheat cropping systems. As this has become an option, more and more land is increasingly being modified, mostly by the quarrying of soil, to lower the actively ploughed levels to such a degree as to make them hydrologically compatible with the canal streams. This has affected the archaeological landscape quite sharply in many ways as the transition to rice-wheat is also generally accompanied by other measures to make sure the investments made in making this transition bring some rewards. Thus, sediment is quarried and sold (and subsequently used mostly for construction purposes) to yield a buried level of sediment which is subsequently often ploughed by tractors for the first few seasons. The inundation of these fields with irrigation water leaves a thin deposit of clays on the surface and thus considerably impacts any visibility of artefacts should the soil not have been carried away. A major concern for the rice-wheat system is the provision of an even surface and a level one such that neat and adequate furrows can be made. It is for this that in the small zones inside the ramparts, farmers have been known to engage family, friends and even labourers to clear their fields of the massive brick debris that crowds it and make ploughing suitable for even dry agriculture, let alone that required for the production of rice or wheat. This task which requires a lot of manpower and effort has of courses significantly altered the archaeological landscape but its presence in discrete patches allows for one to account for it. Further, it must be noted that the nature of the major site within the fortified area is such that farmers of some areas confessed in exasperation that after removing all the bricks, they were dismayed when upon ploughing deeper the next season, the plough brought up as many if not more brickbats.

While modern and more 'traditional' forms of agriculture have been a transformative force in the nature of surface assemblages at the site, they are by no means the only powerful force acting upon the landscape as the lives of the local inhabitants intersect with the site in a number of ways. The sketched map of Cunningham displays villages which are considerably smaller than those which exist today, a trend in consonance with known trajectories of demographic change. A feature which is significant and common at many archaeological sites of the nature of Kausambi in North India is their extensive dismantling by later populations in search of construction materials. The case of British railway constructions pillaging Harappa and Mohenjo-Daro may have been an infamous example but the process is a historical one and one which has arguably seen continuity over the long term. While it is not possible to have consulted early population estimates, general observations over the course of the last one and a half years and a consideration of the present settlement of the district as compared to our best knowledge about the past have led to the following hypothesis about the manners in which this demographic change may have taken form over the last three to four hundred years. A major anchor is the drought of the 1790s when over one-third of the villages of the belt are said to have undergone severe to extreme reversals and may have even seen desertion. One can presume a period of slow demographic recovery after that time and can perhaps see its trends in the consistent pattern in which many villages today occupy a space adjacent to and partly overlapping a mound which seems to contain extensive medieval materials. It is this process which is seems to document the expansion of villages at Kausambi, especially those of Garhwa, Hisamabad and Kosam Inam. The trajectory of recovery is said to have been given a different dimension altogether when in the late nineteenth century the local zamindar is said to have relocated to the village of Mustafabad which is also close by. The physical and concrete presence of the zamindar continues to be a major structuring dimension in the manner in which local inhabitants chose to talk about the recent past. One dimension of this past, which is often sanctioned by oblique or even direct reference to the late nineteenth and early twentieth century zamindar is the massive use of construction materials for domestic building purposes. While this process no longer stretches much further back in time, we see extensive, brickbat and re-used brick architecture for many periods in the topmost layers of Kausambi, the course and dimensions of such activities over the nineteenth century seem to have been of a different order altogether. Upon my first visit to the village of Garhwa I was struck by the number of village houses which seemed to have been built entirely out of old bricks, especially unbroken ones which had been carefully selected and chosen. During the course of the survey, of its approximately 500 houses 200 were selected and of those mere than 180 were found to have been built of old bricks alone. It has been hard to parse the period of these bricks but largely these appear to have been of the category of Kusana and post-Kusana periods on the basis of general size. The experience at the villages of Kosam Inam and

Hisamabad was much the same. The smattering of houses at Amba Kuan have come up largely only in the course of the last twenty years with the establishment of a Police Station and a PDS outlet, but amongst these too there are many which have been constructed exclusively out of old bricks, albeit most of them broken and thus technically brickbats. Most surprising perhaps was the case of Mustafabad itself, which is at least 1300 metres from the nearest part of the fortified site and where the old haveli of the zamindar, now subdivided amongst his many descendants is too constructed out of bricks either sourced from nearer mounds now completely destroyed or as the inhabitants put it 'Kile ke eent', i.e., 'Bricks from the fort'. Such activity is known at all major sites and is understandable given both poverty and the reasonably high costs of bricks for large sections of society.

To try and understand where these bricks were sourced from was thus a major challenge for the survey. Based on current observation it appears that the acts of repeated ploughing seem to have redistributed and reconstituted brick distributions in many zones by unearthing and redistributing further architectural materials. It would appear that much of the medieval architecture, especially that which accompanied the medieval period stone fortress may have been dismantled quite substantially – something suggested by its complete disappearance in most cases as well as its proximity to the villages of Garhwa and Kosam Inam. The fact that very few complete bricks were encountered in the fields was initially put down as being due to the fact of breakage under plough and due to re-exposure but given the value they are accorded even today it appears that they if any had survived they too would have been selectively removed even though that is an extremely effort intensive task. More common, and yielding better results are outright cases of brick robbery and these were encountered regularly along the sides of some of the Nalas which drain out of the fortification area and have in many places exposed brick walls. The removal of bricks from these contexts is a serious matter as it is considerably increasing the pace of head-cutting and further erosion of archaeological sediment along these mounds. The other major zone where brick robbery is currently directed is along the rampart wall and this shall be discussed in the next section alongside the discussion on the rampart.



Figure 5-4 A typical house in Garhwa village constructed entirely out of old bricks. The same have been used for the pathway as well.

Current practices of traditional and vernacular architecture in the villages have also impacted upon the archaeological landscapes in a specific manner owing to both a geographical and cultural peculiarity. Speaking with the villagers of Garhwa in particular about the preferences with which they build houses one preference emerged with an unvaried regularity, the desire for a single slab door-sill. This single cultural preference has entailed the disarticulation and dismembering of much of the stone architecture of the site of Kausambi and this has been an exhaustive if not regular practise. Thus any flat stone slab of manageable proportions, particularly of more than 50 cm along its longest dimension has been removed to the villages and has come to serve as a door-sill or foundation or as is more common as a grinding stone. This is one major reason why the survey usually encountered only sandstone cobbles and small decorated architectural fragments in the

fields. Any sculptural fragments, or any fragments whatsoever which appear to have been 'sculptural' have also been removed and as is a common practice removed to the site of a tree, usually within the precincts of a village and are now under some form of informal worship. There appears to be no reliable basis on which to assume whether each set of fragments came from the area closest to the respective village, rather, anecdotes are related quite to the contrary.

In addition to these more obvious categories of removals, working with a team of assistants who were locals also brought to my attention the very particular practice of villages seeking out *jhaama*, or a very particular form of brick, which is over fired and thus extremely light and frothy. This has been removed in large categories to help serve as a scrubbing device with which utensils can be cleaned especially in the absence of detergent in earlier times. In contrast to this practice and something I was equally keen in trying to determine and observe, there are two particular practices which involve bringing materials out to the site. The first is the deposition of large amounts of kitchen ash (most kitchens still run on dung while the more affluent families can afford a gas connection) onto the family units fields as a measure of fertilization. Quite often this does include charred and burnt potsherds but these are small in both size and quantities. The distinctive nature of the 'sediment' brought out and its often large quantities do impart a pronounced effect upon the color and appearance of the exposed soil cover of that region. Additionally, it has been a custom for the villagers to bring out a diwali lamp into the families fields on the night of the festival and while small and seemingly modest, the survey was surprised to see how regularly we encountered these in both intact and in broken form – something which would not have been possible had we not taken the time out to note what were its specific forms and appearances based on samples from one of the two local potters at the village of Amba Kuan.

A last category of current land-use and land status relates to those categories of land which are currently not under plough. While small in percentage lands under dispute and not ploughed for a couple of years were revealing for they displayed almost sealed surfaces, with only bricks regularly visible. Ceramics and other small materials thus appear to have been buried under what are probably rain-led processes of clay redistribution and surface distribution. The second such category was that of graveyards associated with present and past muslim populations of the villages. A few isolated graves were found in the middle of the fields and on inquiry it was revealed that generally people do not wished to be buried in their fields but the practice is known. More common however is the more formal burial near the villages in loosely demarcated graveyards, Graves however are simple and often completely unlined and unmarked save for a few bricks, re-used often, which mark a headstone. A more elaborate concern with burial is noticeable in a complexes on both sides of the village of Kosam Inam and contained at least one grave each which had a formal enclosure of bricks

and a lime plastered platform, much of which in both case has by today been dismantled. If there is any index of the nature of the settlement at Kausambi in the medieval period, which possibly co-relates with the stone fortress this is it and it speaks of a settlement which could sustain at least some significant social standing as well as possibly a religious complex. The grant of a *maafiyat* to a local establishment seems to date back to the Mughal period, particularly as there is little information today on when the grant was made and what it refers to. In Hisamabad there is a major sufi shrine, which sits on one corner of the village on the bank of the Yamuna, and has no doubt seen better days. On purely structural grounds it does not seem older than two hundred years at most but has in recent years been robbed of its ornamental windows and jalis and the superstructure which remains provides very little assistance in ascertaining any age for what survives of the monument. The archaeological significance of the graveyards for the medieval period aside at least some of these areas were clearly located upon areas which had been previously settled as well, as observable by topography and neighbouring areas, but the presence of graves has prevented agriculture and thus archaeological deposits in these areas remain by and large sealed.

The present exercise in ethnography of practices which impact the landscape has attempted to highlight the richness and diversity of the myriad ways in which the archaeological landscape is reconstituted today and the manner in which that mediates and presents it to us. A second and equally important concern is resolved in the need to try and understand the degree to which similar and different processes were active in the past. One such aspect involved the possibility of locating ancient brick kilns on the Kausambi area, an activity which no doubt would have had a considerable and vast presence in the time when massive amounts of brick were being produced and consumed by the city. Sadly this is a category of evidence which was not retrieved at all not were any residual or relict traces of it visible. One of the major agents of landscape change today is the establishment and operation of large numbers of brick kilns which have often involved the quarrying of the surrounding landscape for depths of up to 3 metres. If anything, the lack of such evidence from the ancient Kausambi area and for the Early historic in general seems to suggest that brick baking was a more discrete, small and polycentric activity, something that may also be reflected in the fact that while broad trends with size preference are indicated, there is no strict standardization in size which is evident for any period. Overall, a long period in which brick making dominated and most construction seems to have utilized new bricks alone appears to range from a time beginning somewhere in the fourth century BCE and continuing until after the 5th-6th century CE. Owing to what has been referred to as the shorter chronology and the lack of strong chronology about the later periods at Kausambi, the latter marker has a more tenuous end and may in fact have continued for another two or three centuries after that.

A noticeable and commented upon trend subsequent to this is the major and almost complete shift discernible towards the re-use of local brick and brickbat in constructions and is a trend which seems to have continued down to the present. This has been seen as a marker of the decline of urban centres and a decline in urban civilization, and is a major evidential parameter in the theories of 'Urban decay' and 'Indian Feudalism'.[15] The assumption here generally has been that only cultures in decadence and economic decline would resort to such scavenging of structural materials. The position taken here is that the strategy of reusing bricks and brickbats is a complex one and while it may be indeed born out of inability to produce or raise the resources to buy and use new bricks, this may not necessarily be the case at a site like Kausambi, where simply the abundance of such materials may have constituted a more viable and economic measure. Further, the entire Urban decay hypothesis is one of overstatement and polarization and links cities overtly to trade in a reductive and functionalist sense. It also fails to pose a more plausible possibility of the changing patterns of occupation at a site, wherein decline and revitalisation can come in phases and 'economic fortunes' may vary considerably over not only time and space but also within the populace of a site. The fact of brickbat usage alone is not a sufficient indicator of the complete ruralisation of any site or culture. Rather, in the case of Kausambi, it suggests the beginning of a condition where less and less resources may be available across the spectrum and perhaps a re-orientation of local political economies, with the concentration of elite groups now focussing upon the early medieval site of Kara, from about the 11th – 13th centuries onwards.

This section has attempted to highlight how the site of Kausambi and its surface archaeology are actively reproduced in manners which go far beyond the materiality of the ancient residents and deeply implicate the practices of a similar realm of even the present inhabitants. A final example of the relevance of this is the following; on the final day of the survey it was decided to cross the river by boat and to follow a quick reconnaissance of the other bank to see if any major archaeological record is available there. The village of Garhwa itself has a large population of a community of fisher folk and they also regularly provide a daily ferry service. In the boat, while observing their nets, an answer was found as to why we had found so very few examples of the perforated fastening end of tiles – they had been scrupulously surface surveyed by the children of the fishermen as they play a valuable role as readily available and hardy net sinkers.

III. Kausambi and the Yamuna: The Geoarchaeological context

[15] Sharma, Ram Sharan, *Urban decay in India, c. 300-c. 1000* (New Delhi : Munshiram Manoharlal Publishers, 1987)

The location of Kausambi on the Yamuna is a classic case of the riparian context of early Indian sites. The river provided vital resources, of water and food; further, in the Kausambi region it provides the most regular form of easy connectivity and transportation. One of Erdosy's major theses about why Kausambi came to be the metropolis that it did was precisely this, that by virtue of being on the banks of the Yamuna it provided many connections, especially those which it could serve as being at the juncture of what Erdosy termed two ecological zones: that of the Vindhyan hills and river valleys and that of the Ganga plains. Undoubtedly, this is one of the major roles that Kausambi has always served, and the nature of the channel at the Yamuna has always made it a stable and reliable crossing point.[16]

The Yamuna today flows through a deeply incised and confined channel and its meanders in this final stretch of its course exhibit a sinuosity of such a low order that they barely qualify at all to be called meanders. This a pronounced effect of a simple fact that the Yamuna whilst being one the two major trunk rivers of the Gangetic system flows on the very margin of the Ganga basin and in this final stretch it waters and ancient sediments are often in contact with Vindhyan bedrock and actively rework older sequences which have derived from Vindhyan series. The most prominent example of this is the fact that at Mau, about 8 kilometres downstream from Kausambi, there is exposed a sequence which has basal Vindhyan sandstone, a gravel from which Acheulian tools have been reported and a subsequent sequence of sediments from the Yamuna which, as known from other studied sections, begins in the Pleistocene and continues to present day deposits. As a condition of the particular course within which it is flowing today the Yamuna has left a high cliff on its present Northern bank, and flows in a channel which is at present upto 20 metres below. Owing to the manner in the basement topography and other factors that have affected the evolution of this channel, the bank of the Yamuna on the side of Kausambi today is a stable and aggradational surface. The bulk of erosive energy is directed upon the cliff on the Vindhyan side, particularly on a stretch in between Kausambi and Pabhosa, and regular scouring and wasting of this area was observed even over the two-year duration of this study. At Kausambi itself, the bank is high but there is no cliff and the villagers of Garhwa and other villages are afforded a sloping path down to the river which is the focus of so many diurnal activities. This setting may seem to afford a situation which is close by and yet protected by the river, but the Yamuna is known to have been a powerful and changing force and we must be wary of projecting such ideas into the past.

[16] Erdosy, George (1988), *Urbanisation in early historic India*. This remains his principal argument for the emergence of Kausambi in particular. Contra D.K Chakrabarti, 2007), *Archaeological geography of the Ganga plain : the upper Ganga (Oudh, Rohilkhand, and the Doab)* (New Delhi: Munshiram Manoharlal Publishers) where he suggests that the major river crossing was at Mau.

These notions, in fact, are unsustainable even for the present and two illustrations may suffice. Upon enquiry I was enthusiastically shown houses which had collapsed and needed repair the last time the river was in spate, a condition in which waters rise up till and above the high bank and flow at a rate which possesses great scouring and erosive power. This is a hazard which occurs on average thrice every two decades and is something the villagers are willing to live with in exchange for the greater advantages of living on the bank. Rarer, at a rate of about once every forty years for the last two centuries, are occasions when the river actually breaks its banks and is in a full state of flood. The last major flood on the Yamuna was that of 1978 and mention of the year evokes tremendous memories from the villagers as it does even for residents of those areas of Delhi which too were affected by the flood. While no real deposit was visible I repeatedly sought to establish, especially in the walked transect blocks, as to how far the flood waters had proceeded especially into the site. It appears that flood waters extended upto approximately 500 metres in from the bank in the area within the fortified site and that in the outlying and lower areas they had understandably extended much further. As the following discussion shall try and elaborate this a risk and a reality that probably Kausambi and the sites in its hinterland have always have had to face, like many other micro-regions in the Ganga plains.



Figure 5-5 Basic map of Kausambi displaying the flood –water line of 1978 in blue, with the black dot representing the excavated area where the 'Painted Gray Ware' levels were found under a 'barren deposit' in 1949-50.

Before we consider the implications of floods and flooding for the Kausambi region, it is apposite to describe the other components of this fluvial landscape. The dominating feature of a high bank on the Yamuna has its most obvious corollary and linked feature in the numerous topographic and seasonal drainages which capture much of the surface runoff of the rainy season and bring it down to the river. These tributaries, or nullahs, are features of tremendous importance as they dissect the high bank and leave it gullied and completely untraversable in parts. Additionally, these features are features which are actively growing and headcutting and network extension, further inland is a trend which is observable. Further, on the occasions when the Yamuna is in spate or is actively flooding, the rising waters are known to rush up these channels and spread further upstream. The reason why these features are important is that they not only affect the archaeological nature of the present landscape but they also present important features which must have affected the manner in which the communities of Kausambi chose to settle and the sustainability of their homesteads. The nallahs bear tremendous importance as they are the most erosive force currently active in the Kausambi region, and when combined with receding flood waters have been known to alter the condition of the land tremendously. Two significant aspects of this are that extensive regions along and outside

the ramparts bear surfaces which have been both eroded and have fresh deposits over them; thus, whatever archaeological material one finds in these zones can be considered mixed. These zones are known as the *matiyari* and are locally recognized as areas where the river renews the top-most sediment cover every once in a while; they are also recognized for their productivity. Secondly, these erosive features have probably been active for some time as evidenced by the network development of both the Pali Nala and the one between the villages of Chotta Garhwa and Hisamabad. Their form and nature has been subjected to considerable modification over the past thirty years as the claims of agricultural enhancement have grown and have particularly included efforts to dam them, to claim water for agriculture and even the effort to link them to the local canal system. Most vitally, efforts have even been made to cover up parts of their channels and networks by dumping sediments in conjunction with lining their channels and the aforementioned building of dams. This has gone alongside the far less easy to document agriculture led plantation of much of the areas around the fortified site, most notably at its foot. The villagers of Amba-Kuan still refer to an area as the *khai*, or depression, but there is no such depression there anymore, nor are there any signs of it. The reason why all of these activities are significant is that save for these two Nalas, there is no other evidence of what was described even in the 1950s as a clearly visible moat to the site of Kausambi. The crucial pieces of establishing whether this was a major feature in the ancient landscape comes from the excavations of the Allahabad University outside the rampart where the documented not only an ancient channel deposits but also hypothesized some form of a draw bridge system.[17] Additionally, the Northern sector of the ramparts seem to have had no such system and for this sector there are no major reports of there ever having been a depression or any major episode of landfilling. Rather, the survey documented a few extant and surviving mounds from the middle of the first millennium CE in this region so it can be safely suggested that there was no major moat system in this part of the site by at least that time, leaving the possibility open of some manner of such a system in the periods prior to that. The position taken here is that a moat with water for the whole year is a hydrologically and ecologically unsustainable idea at present in the Kausambi region, and this may be projected into the past. However it does appear, principally on the excavated evidence, that the residents and more likely rulers of the city perhaps at some point did manipulate the system of Nalah's into some form of a moat, although the precise nature and details of that remain unclear.

This discussion will now attempt to focus on a consideration of the topography of the Kausambi area and of the necessary precondition of the moats – the rampart itself -- and to raise issues of the contexts in which the people of Kausambi first settled and the dimensions according to which the

[17] IAR 1959-60, p.46-47

people who have lived here have consequently shaped the landscape. This discussion is largely made possible by the fact that many of the nallahs described above have incised their channels tremendously, especially as they near the Yamuna and have exposed large sections which reveal different fragments from the geological past of this micro-region. Before we consider those areas it is advisable once again to describe the area of Kausambi and the fortified site again. For this I have used the SRTM topography data, to generate the basic profile of the area as it appears today.

The site of Kausambi itself appears as a plateau of about 200 hectares which stands above the surrounding plains by a marked relief of at least 5 to 8 metres. Debate has hitherto centred around the manner in which this came about and whether this entire area, as it stands at this height today, represents a massive archaeological deposit or whether parts of it are actually the result of an undulating and upraised topography below the archaeological sediment. As Figure 5-6 demonstrates, even on the coarse topographic imagery of the SRTM the Kausambi area stands out as a major zone of topographic relief. Equally worthy of notice is the fact that the surrounding area is far from being absolutely flat, something which is not often acknowledged. That this is the case for the entire Allahabad doab has already been discussed but needs stressing again in the present discussion. While levelling for modern agriculture has destroyed much of the original contours and thus makes consistent geomorphological interpretation difficult, it can be clearly seen that the area around Kausambi has many such undulations and higher areas. Field observations, however, seemed to indicate that the only ones which were truly distinctive today were the *bhur* ridges, or such features which were initially higher than the others and have subsequently, while being subject to the forces of planation, have received significant additional deposits of the locally entrained Aeolian deposits and are characterised by that cap of fine sediments. However, these are mostly of the nature of about 0.1 to 0.3 hectares and thus barely match the area of Kausambi. The fortified area is in fact so distinctive that it has even attracted the suggestion that the zone may have been subjected to neo-tectonic effects which have uplifted it.[18] This is a possibility which cannot be denied especially as the Yamuna is known to have undergone such control and forcing in the Agra region, where it displays visibly compressed meanders, a sign usually taken as distinctive of rivers which have been subjected to significant tectonic control in their patterns of channel evolution. Further and more direct evidence has also come from Kalpi where there are tell-tale signs of a neo-tectonic event and

[18] I am deeply indebted to Dr. Rakesh Tewari for having brought this to my attention. This is a category of geomorphological change which I would not have otherwise considered as relevant in the course of my fieldwork. Dr. Tewari has attributed the tentative suggestions to Prof. I.B. Singh of the Lucknow University who, to the best of my knowledge, in his voluminous and seminal contributions on the geomorphology of the Ganga plains has not published it.

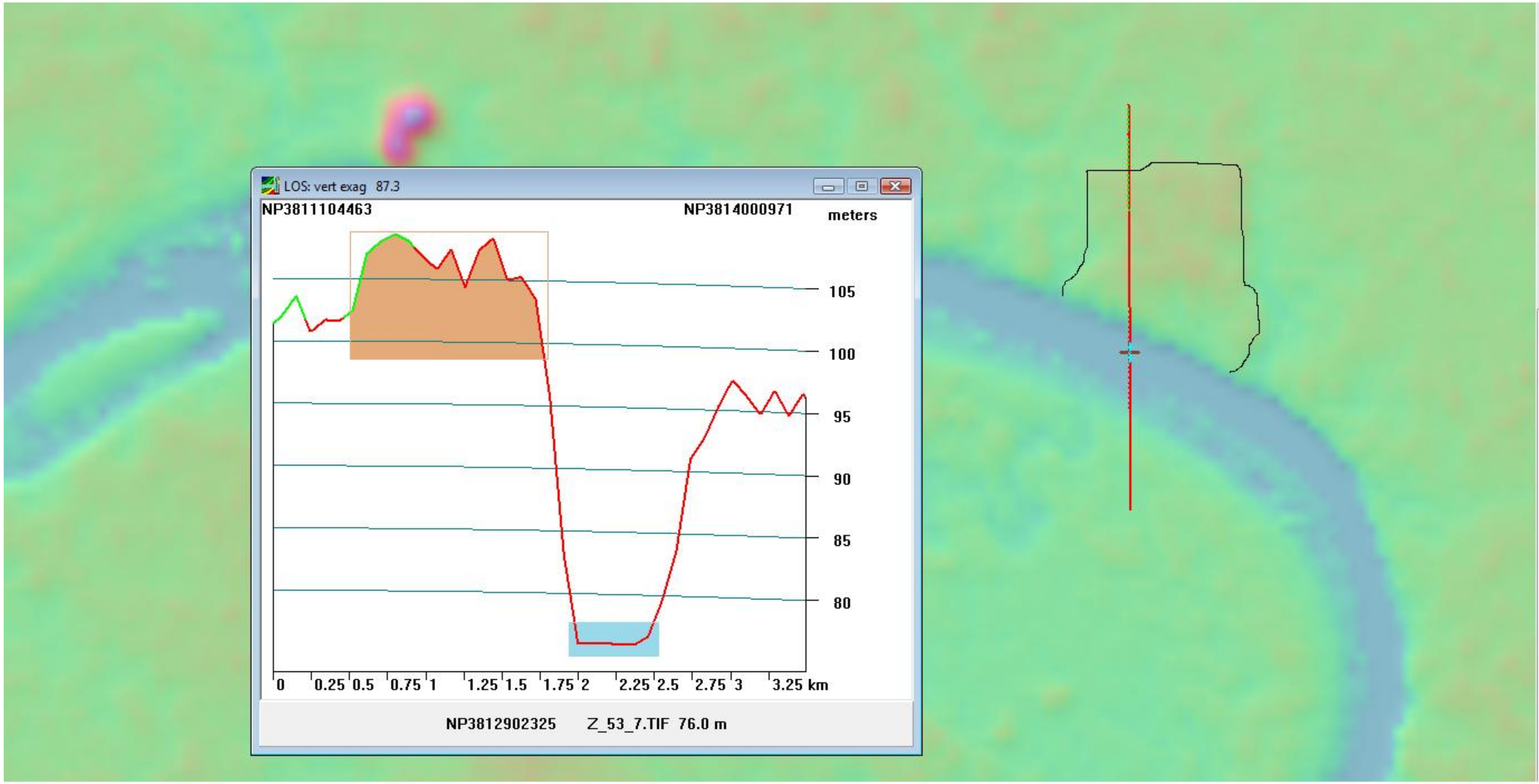


Figure 5-6 SRTM topography data on a scale where blue is the lowest and purple and pink represent the areas demonstrating higher relief. The fortified area of Kausambi is displayed on the right and has been sketched in the form of the black line. The box in the middle shows a profile which is calculated along the line drawn in red across the site of Kausambi, beginning in its North, outside the fortified area, through the site, past the Yamuna and onto the far bank of the Yamuna. The blue zone in the chart represents the zone of the active channel of the Yamuna. The cliff is clearly visible as is the highly mounded and raised profile of the fortified area which is represented by the area colored in brown. Notably, the area outside the rampart to the North is not flat and shows undulations as well. The data is coarse, and the spikes within the fortified area as well as in general are a result of this rather than of actual trends. Nonetheless, the data is the best available for the region and demonstrates the complexity of the geomorphological setting of the site. The small area showing pronounced relief just above the chart is the hill of Pabhosa.

liquefaction sediments has been witnessed on a massive scale. The theory is plausible for the Kausambi region particularly as there are not only known subsurface Vindhyan lineaments but also outcrops which have been known to exert a control over the course of the river. However, there are no well documented faults in the area and during the course of the inspection of exposed sections visible in the area I did not encounter any evidence of faulted sediments nor of any liquefaction. Given this, there does not seem to be any present evidence for massive faulting in the area but it may be considered an open possibility even though its traces in the larger region of the Allahabad doab too are not known or evidenced at present.

On the basis of what was observed in the prominent sections which are available for study the following can be suggested. While the high bank of the Yamuna is a clear and distinct feature, it is not only a terrace but also, on account of repeated deposition and flooding, bears clear deposits of overbank fines and flood sediments which have subsequently been reworked not only by local forces but also by subsequent scouring as well. It seems that we can presume a period of bank aggradations and overfine build-up over a long period of time and it appears that this included a complex set of processes for the land further inland is suggested by two sections in particular: that to the east of Chhota Garhwa and that immediately east of Kosam Inam. The section at Kosam Inam (Figure 5-7 and Figure 5-8) is important because it displays a clear and massive deposit of fine and medium sands at the base of the exposed section, suggesting that at some point of time the landscape configuration was such that a large amount of bedload was deposited here. There are other suggestions to the North of the fortified area, which too suggest a more northerly course for the Yamuna. These exist in the form of large subsoil water rich zones away from any known area and the presence of the bhur-ridges which suggest the possibility of an abandoned and massively reworked previous terrace system. The implication of all of this is that there certainly exists a complex baseline topography owing to the layer of sediment, and further undulations may have been built open the same. The influx of large amount of sediments would be expected to decrease from the main channel and this too may have exerted some control over the forces of landscape evolution. Approximately two kilometres away at Chhota Garhwa (Figure 5-9), also close to the river bank, at a series of high and massively eroded sections, these older processes are apparently not visible but a major deposit of the later periods is evidenced and is visible. The combined evidence of these two sections certainly suggests that the paleolandscape here was defined by considerable relief and the Yamuna in its aggradational phases has successively transformed it over many epochs and different phases of sediment deposition.



Figure 5-7 A view of the Kosam Inam section, which has at present incised to at least 19.90 metres as could be best measured. It clearly displays a massive lowest layer of fine sands, which are mostly obscured by the talus of freshly collapse deposits. Above the fine sands comes a layer of varying thickness which seems to represent alluvial rather than channel deposits and is followed upon by the interweaved bands of clay rich and complex deposits seen in the middle of the picture which seem to relate to periods of low energy fluvial conditions and flooding, repeatedly and interspersed with other events. The topmost three metres seem to represent a succession of large and more stable deposits probably indicating a period which approaches the present in terms of the location of the channel. Most of these deposits are probably Pleistocene, but without a comprehensive sedimentological and dating program this can only be regarded as an estimate.



Figure 5-8 Detail of part of the section exposed at Kosam Inam highlighting the nature of the sandy deposit and the large undulations visible in it. Note the deposit of alluvial fines which fills this and in the process of the exposure of this section has hitherto resisted erosion more successfully than the underlying sands.



Figure 5-9 The erosional section at Chotta Garhwa. The section here was distinguished by a marked lack of clear stratigraphic distinctions and appeared to be broadly a feature constituted by similar nature of deposits. Note the even higher cliff in the background which is closer to and currently abuts the bank of the river. The intervening area seems to have been eroded and wasted away by a longstanding and continuous process of runoff and gullying, and headcuts are active and have proceeded further into the once inhabited area to the North and North-East of Chota Garhwa. The stream which is visible in the left hand corner is the possible candidate for the moat and bears water in the middle of June primarily only due to a recent cut which has linked it to the Canal system.

The next category of evidence with which discussion on the processes and dimensions of landscape evolution in the Kausambi region can proceed relates to major erosional features which drain rain water from within the fortified area out towards the lower lying outlands and have exposed often deep sections. A number of these demonstrate a marked period of incision and headcutting and further destruction of the mound is a process which needs urgent control and management. As stratigraphy of the site but also the geological deposits and the nature of the landscape prior to expansion of settlement to those areas. A major limitation of this program of study and of the general observations it can offer is the inability to locate this data in the z-dimension or in terms of absolute height. Hand-held GPS units do provide an altitude reading but the error margins on that do not usually provide enough accuracy to judge matters within a range of say 3 metres, which would have been substantial in this case. Additionally the task of trying to generate a contour map of the Kausambi region was beyond the scope of this project, especially as the area is forbiddingly large and more suited to the application of technologies such as LiDAR which are increasingly becoming available in India. Further while it would have been desirable to do so it was not possible under the time, resources and expertise available to employ methods like fly-levelling to establish the relative differential in altitude amongst these sections.

The central observations which can be offered from a consideration of the major erosional sections which are visible at Kausambi (for their distribution see Figure 5-10) is that there is indeed a geological deposit that underlies many if not most parts of the site. This deposit seems to be highly undulatory and by no means can even on a detailed study of the evidence as exposed in the sections be generalized across the whole site. At the location C marked in Fig 5-8 a prominent geological deposit had underlain the archaeologist deposit whilst the considerable erosional section displayed at location D only showed such a deposit at what seemed to be a much lower level in absolute terms. In the eastern sector of the site prominently at the section at location E, there seems to have been a massive archaeological deposit under which there was indeed a deposit which seemed to bear a surface about a metre above that which seemed to have been an ancient surface on the outside of the ramparts in the same area. The section at the excavations of the Eastern defences, which has been at the centre of the debates concerning the nature of the rampart has since slumped and is thus unavailable. Portions of it were studied nonetheless and it was decided, as at all other locations, that scraping it and further hastening processes of erosion would be of no great value in terms of what they could hope to reveal.

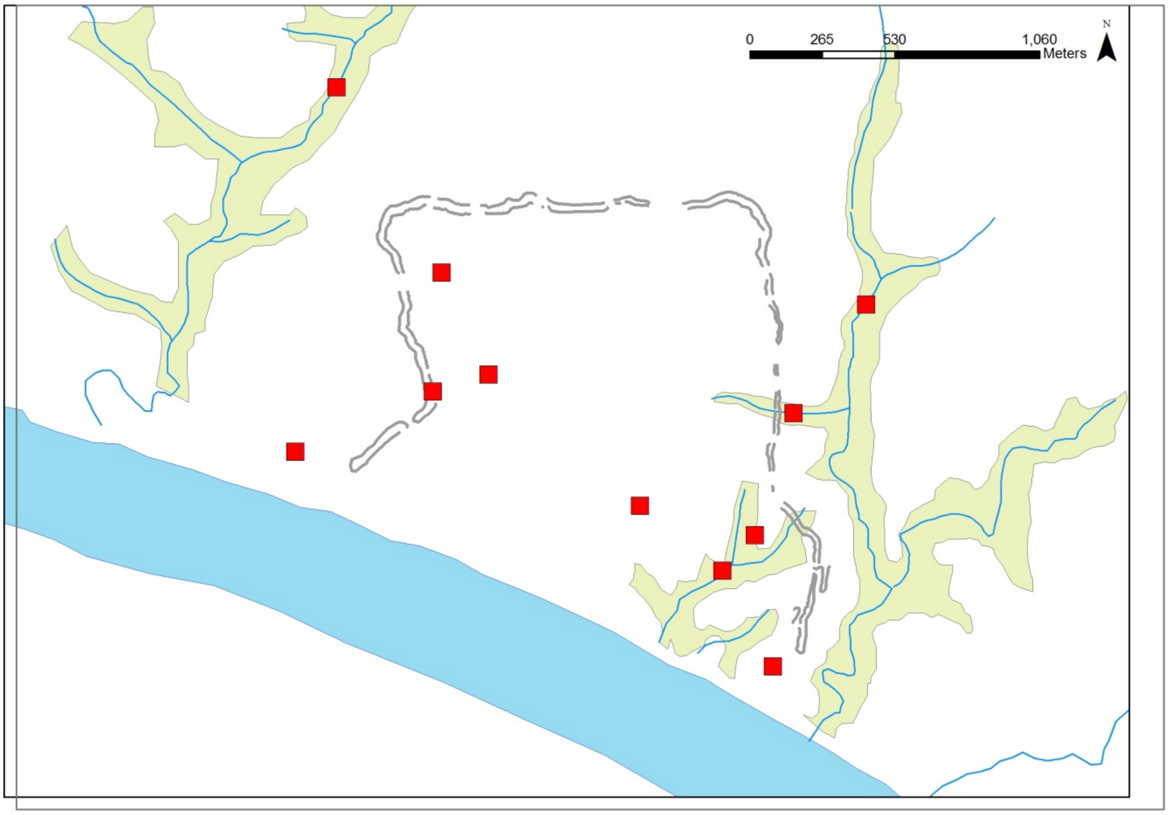


Figure 5-10 Location A marks the Kosam Inam section; B the Chota Garhwa section, C the section in the North West corner and D the one to the south of it. E marks the section on the khunti wala nala.

It appears to be clear that prior to even the earliest settlement here the Kausambi area had an undulatory and complex topography, most of which can be attributed to a complex series of shifting and reworking alluvial landforms including levees, alluvial ridges and complex deposits of overbank fines in the period since the Yamuna has stabilized in its present channel. The fact that this does rise high above the surrounding area seems to have in parts been an ancient feature, but this observation is not tantamount to the understanding that much of the area or the rampart are a natural feature.[19] While sedimentological deposits are not available, the fact that there appears to have been a flood which intervened between the 'PGW' and the NBPW phases at the area near the pillar suggests that there were low lying zones within this larger region and that the present dimensions are as expected the creation of approximately four thousand years of occupation.

For the formulation of the present study's consideration of the rampart, two categories of evidence are addressed. The Allahabad University excavations had revealed an 'ancient humus' at the top of the first phase of the mud rampart which was further suggested to have been overlain by mud-blocks. This point became a crucial point of dispute and was raised by Lal et al as having been part

[19] Cf, B. B. Lal, 'Are the Defences if Kausambi Really as old as 1025 B.C.?', *Puratattva*, Volume 11 (1979-80), p.119-135

of an ancient horizon which they were able to trace in the gullies which extend into the area outside of the rampart and which they hypothesized would also have been the case in the interior. The present survey, while distinctly looking for an ancient humus, could locate no such feature in any of the clear gullies which has exposed and thus cannot contribute to that discussion. Further, the study of the rampart in the manner described in section I of this chapter has revealed certain aspects which are worthy of consideration and shall be described below.

The rampart as it appears today is increasingly being cut down and levelled for agriculture and in many regions is discernibly disturbed by such levelling. In other areas, modern path-ways have been punched through for tractors, cattle or shortcuts for the people of the village of Garhwa. These are increasingly altering not only the height and continuity of the rampart but are also introducing significant controls over the manner in which they can be further studied without excavation, i.e. by survey alone. One of the major obstacles which the survey faced in the consideration of the rampart was that it appeared to be capped by a significant geological deposit of locally entrained and deposited Aeolian materials. Thus, in most areas, whatever architecture there existed upon the top of the rampart has now been buried and a hardened cattle track which runs along the top of it for most part dominates what can be seen. Many parts of the rampart, partly owing to this deposit, bear luxurious clumps of the Kusa grass and others have been recently planted by the Forest Department with clumps of Acacia with apparently no other purpose than aforestation. The best guide to what lay within seemed to be the pits dug by brick-robbers along many parts of the rampart and additionally animal burrows which served the same purpose. A major consideration also was the nature of the height which the rampart still displayed above both the interior and exterior levels, which in the case of the exterior was always impressive and contrary to what had been expected on the basis of the published literature, in many places continues to tower a good 4 to 6 metres above the extant level within.

The configuration of the ramparts, in addition to what the foregoing discussion has sought to establish about the forces of landscape evolution at the site, suggest that while the construction of the rampart sought to suitably exploit the natural relief and formations, the rampart, especially in its entirety is by no means a natural formation. Further, there is no indication that any such natural formation extended around the entire site, particularly not in the manner in which the rampart is found today. If anything at all, the configuration of the ramparts suggests what the discussion above had hinted at, that natural levee or ridge-like features are most prominent near the bank of the Yamuna and their manipulation and incorporation into the fortified area seems to have been the guiding principal rather than any geometrical pre-conceived plan.

The rampart had been excavated in two areas, as detailed above in Chapter 4, and the evidence from both put together shows a picture of continued relevance and of major building activities over a very long period of time. The end appears to be clearer than the beginning and it can be suggested that the tower site of Bhavariagarh constituted one of the last major additions to the rampart and can be dated to the medieval period. This is particularly suggested by the fact that the principal ceramics obtained from the excavations have been re-classified as medieval and that the densest concentration of medieval period remains did appear from the area adjacent to it. Prior to this, the additions and renewals of the many complexes at the Eastern gateway itself have suggested a complex history and may have had a much longer chronology than is currently thought. As Monica Smith has recently argued, the building of city walls constantly provided a source and a site of legitimization and of public works. Their upkeep and maintenance could arguably have been a strategic decision and one which was aimed at generating goodwill and legitimize the sovereignty of rulers.[20] The issues of the initial construction and of the initial period of massive brick-built facing and the construction of guard houses etc. remains a major issue and can only be hypothesized on here. What follows is a hypothesis about the manner in which the rampart at Kausambi may have grown and acquired its present dimensions.

The earliest phase is known only from the excavated Eastern defences, and two observation are made here about the nature of the mud-rampart. While opportunistic use of the natural levee and ridge formations certainly does seem to have occurred, this could not have been the case for whatever area the initial mud-wall was designed to include. The natural levee and ridge formation do not appear to have ever had the regularity nor the massiveness which the initial mud rampart seems to have had. The construction of the mud-rampart was a necessary and monumental act and must not be subjected to any underconsideration. Given the debate that has previously played out, only two observations may be made here about the possible dates of the rampart. None of the other excavated sites of the Vindhyan Chalcolithic or the Kakoria-Koldihwa Complex have thus far yielded any other evidence of there having been any fortifications at these sites. While that does not in itself rule out the possibility of there having been one at Kausambi in the period, the surface spread of materials from this period, admittedly mostly encapsulated and buried, suggests that the settlement in that period was small and not consummate to architecture at such a large scale. More likely a possibility appears to be the middle NBPW period and this is something which seems to accord well with the general evidence from the Ganga plains, although that in itself again is a problematic dataset. Despite that, it is suggested here that by the mid NBPW period there was a rampart and

[20] Monica L. Smith 2003 ‘Urban social networks: Early walled cities of the Indian subcontinent as “small worlds.”’ in *The Social Construction of Ancient Cities*, edited by Monica L. Smith, pp. 269-289. Smithsonian Institution Press,Washington D.C.

accompanying the major structural activity which is seen in this period, some may be presumed at the rampart as well. It would appear that minor and major brick additions continue during this period and eventually a massive phase may be seen to as falling in the early centuries CE or possibly even a bit later. This phase by no means marks the end of the rampart as may have been presumed under the more cataclysmic and decline narratives. While the hypothesis about Bhavariagarh shall need to be substantiated the sole means to that lies in the excellent archive of records at the Prof. G.R. Sharma Memorial Museum. A major transformation in the attitude towards the rampart may have been recorded in the time after which its upkeep in terms of brick repairs is abandoned and the geological Aeolian deposit allowed to consolidate. Two further aspects of the archaeology of the rampart merit attention in the final stage, the tower at Bhavariagarh, which if anything clearly caps the earlier and presumably numerous phases appears to have been a feature of purely rammed clay and little use of structural materials . Some effort towards either cleaning up of various parts of the site or of shoring up the rampart seems to have been evidenced in certain sectors in a later period during the occupation of the site. This involved the dumping of materials in the lower half of the slope of the rampart along its inner side. While these areas are increasingly being levelled, it appears to have been some form of a retention feature, perhaps trying to uphold sediment of the mud rampart which was wasting on the inside. Current farmers knew nothing about the feature and treated it as an irritant and it was noticed by the survey also primarily because it had utilized a sediment source which had contained a fair amount of NBPW thus making it distinctive in a sector which had otherwise yielded nothing earlier than the early centuries CE.

Two final points may conclude this review and discussion of the rampart at Kausambi. The Northern segment of the walls, which appears to have involved the most amount of labour and effort in terms of the low probability of their having ever been a natural feature along these dimensions, has not been excavated and there is no large or small erosional feature along which one could observe what lies within. If there was ever a moat at Kausambi, or if at all the entire fortified area related to one single plan of fortifying it, are valid and problematic questions at present to answer and it appears that an excavation of this area would be the most fruitful for those purposes. As a comment upon the manner in which the production of archaeological forms of knowledge about the past have related to the public and especially that beyond the English-speaking academy, one of the questions I was asked the most frequently and most seriously by the local people at Kausambi during the survey was: Given that the Ramayana story has almost nothing to do with Kausambi, why is the wall here called the *Ram-pat*? This is, if anything, an indication of the Wheelerian legacy and its all-pervasive dimensions may be sought out in that question.

IV. 'Counting sherds as sheer madness': The Results of the Ceramics program at Kausambi

Over the course of the survey, a total of 27, 458 sherds were evaluated in one or the other procedures in which the survey was designed in its attempt to characterize the surface assemblages of Kausambi. This arduous and time- consuming task was one which was daunting and challenging to implement and the consideration of its results was an equally involved task. This was also carried out much to the surprise of the local inhabitants to whom the millions of sherds present had never been an object of particular interest – something which given the considerable impact cultural practices continue to have on the site was a matter of relief and also worthy of documentation. The title of this section is taken from the most common reaction the survey received from literally everyone who encountered it in the full heat of the June sun.

To briefly restate the methods, while walking, a number of points were designated in each transect where a gross count was made to enable us to make a statement about the absolute trends. A circle of circa 100 m^2 was laid at one location, if possible, within each transect and was the basis for a more studied examination of the assemblage; here all sherds were sorted into thick and thin sherds and counted and weighed. This data was crucially supplemented by the aim of trying to identify as many of the diagnostics as possible by period after an initial idea had been ascertained of the range of distinctive wares visible. Both these strategies proved to be absolutely invaluable in the quest of a more structured investigation of the site. They helped define notions of exactly what is meant by the massive density of artefacts at Kausambi. In tandem both of them in addition to the careful recording of all other sherds / diagnostics of note outside of these zones were the principal guide in the manner in which this survey attempted to characterize the transects it traversed. In addition it is this dataset which allows for a discussion of what measures are appropriate when we consider a large area, the hinterland of a site which was a major city for over a thousand years and attempt to define its boundaries and limits.

The two protocols of study allowed for a characterisation of the site at different levels and these shall be discussed in turn. The program of taking Density points, or 1 m^2 counts of all ceramics, excluding only those which were smaller than the size of a thumbnail proved to be an effective measure of not only demonstrating but also quantifying the massive density of ceramics at a site like Kausambi. Once outside the ramparts it provided an extremely useful tool for the survey to delineate what areas could constitute on-site or off-site locations. This was again a useful heuristic in documenting the manner in which erosion and deflation and well as the quarrying and redistribution of sites affects surface distributions in their most elemental and gross nature. While only in a more

qualified manner this form of evaluating the surface assemblages of the Kausambi region has proved to be the most effective manner by which the density of bricks and brickbats could be expressed which is something that has been lacking in traditional methods of evaluating and describing sites. Further it is hoped that as done at a few sites in the hinterland such methods shall be a useful tool in documenting and providing a useful description for the massive density of artefacts at sites such as Kausambi and others in the Ganga basin.

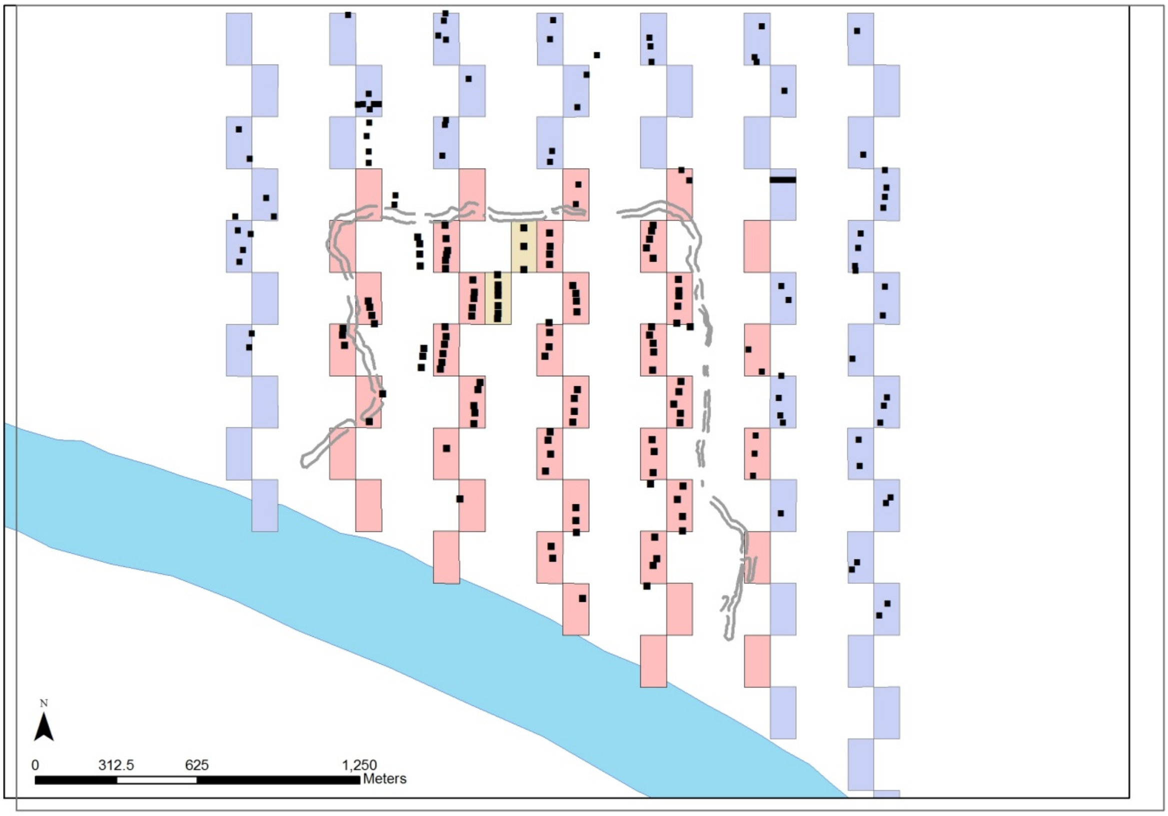


Figure 5-11 The figure demonstrates the location of all density points conducted during the survey. A total of 109 points inside the area of the fortifications and another 91 such points in the area outside were taken. Counts were considered but then avoided at locations which appeared to be clearly disturbed or had signs of sediment quarrying and large scale landscape transformation. Additionally, in areas where backdirt piles were visibly a component of the exposed surfaces again counts were not taken. In the area outside the ramparts once it appeared that transects had moved into a zone which was 'off-site' counts were not resumed until artefactual distributions resumed. However, if materials continued to occur on other lines than that of the central surveyor, then counts were taken and even null values recorded.

	Sherds	Bricks
Core area transects		
Max	335	225
Min	0	0
Average	78	43
Outer area Transects		
Max	207	91
Min	0	0
Average	37	9

Table 5-1 Displaying a statistical abstract of the manner in which the major trends of the density points varied.

As Table 5-1 demonstrates the density point project of assessing the surface archaeology yielded a different manner of characterization of the different areas and can be discussed as follows. Within the core area, the density point protocol allowed for a number of major demonstrations which while humble are significant. Firstly, it allowed for a measure which can demonstrate that indeed the entire 200 Hectare plus area is as can be approached today a single and continuous site.[21] Further, it has gone some way in characterising the massive density of artefacts by documenting how in every metre square, if the count of small sherds is included, there are an amazing 78 sherds per metre square which lie on the surface. This trend of course varies tremendously and has a considerable correlation with both the number of bricks and the general period of the assemblage. Owing to the nature of the NBPW to shatter and produce a very large number of body sherds from a single vessel, and for reasons of the survey's interest, they were not included in these counts. Further, this protocol of study has a gone long way in demonstrating that the brick densities at Kausambi are truly massive and that they bears reckoning with, especially in what they speak for the profuseness of brick / brickbat architecture in the last few levels of the site, as applicable over different regions. Drawing on the assessment spot protocol, a generalization of brickbats being equal to circa 9 kilograms in weight has been arrived at and the density point program clearly demonstrates that this trend is massive and significant. Very rarely did the distribution of brickbats suggest that whole bricks were used and thus this is also an attempt towards trying to formulate a strategy by which to describe and quantify brickbat architecture, especially in its disturbed and frequently encountered ploughzone context.

[21] Doubts about this have been expressed in the past and about the nature of the site

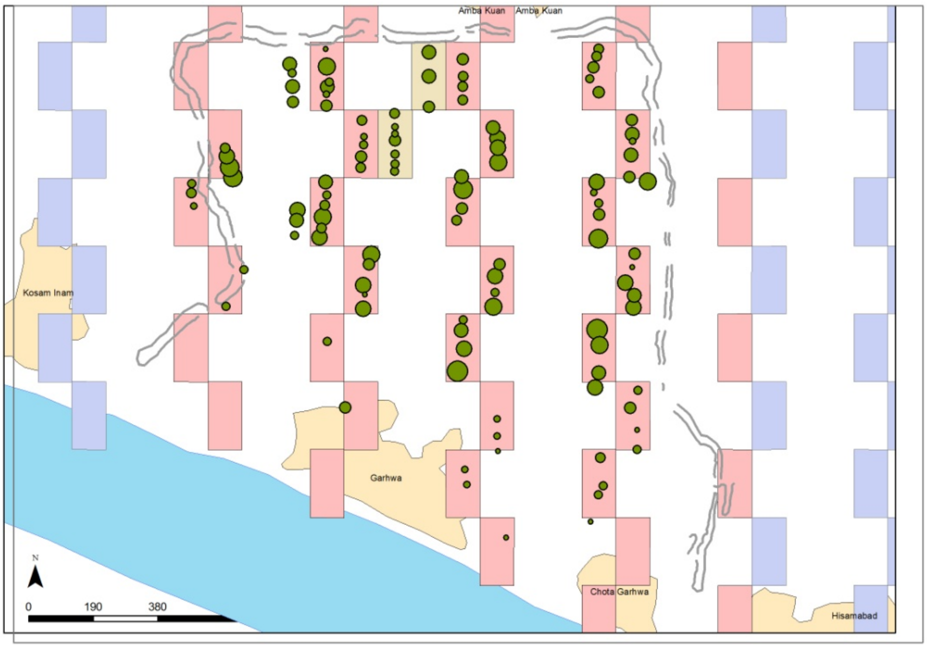


Figure 5-12 An illustration of brick density patterns in the core area. The larger circles present a representation of areas of greater density. Note the significant falloff towards the area of the riverbank villages. This is partly due to the dismantling of structures and re-use of the bricks but also due to the nature of the occupation in these zones as argued below.

The trends from the outer area suggest dimensions which are best understood with reference primarily to their far more disturbed and attenuated contexts. In all of the area surveyed outside the fortification, mounds had either been levelled, ploughed with tractors, perhaps repeatedly and many had even been quarried for sediment at some point or the other. Thus, the trends here I believe speak of these contexts as well as perhaps of the nature of dismantling and scavenging that they have seen. The association between sherds and bricks here too took on different dimensions and quite often the averages which have been evaluated here have been impacted by zones where we consistently found what appeared to be stray bricks, remnants of something which had once stood in a quarried zone while no sherds were found to accompany them and the inverse was also witnessed fairly often.

The distribution of gross trends as well as the nature of the sherds found and counted were also the basic trend by which this study sought to establish whether it had been a major ancient practice, or modern for that matter, to manure fields with archaeological sediment and refuse as has been the documented case in other parts of the world. This is a practice which demands and merits archaeological attention as it can create large distributions of archaeological materials on the surface which do not refer to habitational occupation or any other use of that site but rather a manifestation of an agricultural practice. This is a major concern as the surface distribution of artefacts alongside a general observation of the 'moundedness' of a territory remains one of the most important indices by which we can estimate site sizes and thus it is of the utmost concern to be able to recognize and distinguish such trends from those which are true indicators of a site and its

spread.[22] The general trend which was observed in the area outside the fortified area did not reveal any continuous low density scatter of the sort that manuring practices have been described as creating. Rather what we observed were either completely disjointed traces of concentrated materials where once sites used to be or we encountered zones where there were absolutely no materials at all. The former seemed to be characterized by situation such as the following: to the east of the rampart we surveyed a whole transect which had witnessed a wheat crop and realized that it had been cut down to a lower level by about 25 to 40 centimetres at a rough estimate. When we approached the bund on the higher level on the far side we observed a slumped section which yielded much ceramics, notably the NBPW, its associated wares as well as large sherds allowing the identification of distinctive forms. Thus, by and large the survey was able to establish a degree of confidence in the nature of the assemblages it was encountering even in disturbed contexts and proceed with characterisation of the history of settlement in the area on that basis.

Two significant exceptions did occur and were studied in detail even at the cost of much time, so that these questions of manuring and their relevance may be fully examined. The first of these came in transects to the north of the Northern fortification wall and were best explained eventually with reference to Cunningham's map of the 1860s. While surveying we consistently encountered here in a small area of about two to three hectares a distribution of small sherds, which were mostly rolled and seemed, in stark contrast to much of the other ceramic material we had been handling, to have been in a completely eroded state. Both the size and the appearance of these sherds were distinctive, they seemed uniformly to group in a small to medium category, while almost everywhere else we had encountered a more mixed proportion of sherd sizes. They appeared to have no relation to any mound and the region further did not yield any great density of bricks or any other artefactual material at all.

At the time of his visit, Cunningham had documented two large talabs or communally dug large water reservoirs to the North of the fortifications. One of these still survives and has recently been dredged and desilted under the aegis of the National Rural Employment Guarantee Act. The other had hitherto posed a problem and it was not clear what had become of it. Based on the general association of mounds and water sources for the Kausambi region and in general over Allahabad district, none of the mounds which end in the early Historic or even in the 'Kusana' period seem to exhibit any correlation with such large dug talabs. On the other hand modern villages, and several which have a major medieval mound associated with them or under them, are associated with

[22] The discussion I have drawn upon the most is in Wilkinson, T., Miller, N., Reichel, C. & Whitcomb, D.. *On the margin of the Euphrates settlement and land use at Tell es-Sweyhat and in the upper Lake Assad area, Syria*. (Chicago, Illinois: Oriental Institute, Chicago, 2004)

precisely such talabs which provide crucial sources of water in the peak summer months even today. On these grounds I suggest here that the two major talabs to the north of Kausambi too form a manifestation of this large form of early medieval through medieval water architecture and their location probably suggests that they were equally aimed at the facilitation of agricultural production. The completely eroded and often completely shapeless nature of the sherds has precluded any possibility of identifying them; thus it appears that either there was a site in the area which was destroyed in the production of the reservoir or, alternatively, the rain-fed reservoir was constructed on open land and subsequently it may have been filled in by using archaeological sediments from elsewhere in the hope of utilising the still low lying land as farmland. While both options seem plausible, the evidence seems to point towards the former, on account of the massively eroded nature of the sherds which presumably may have occurred by being lodged underwater or in sediments which were in close contact with the stored water.

In the course of the investigation of the area outside the demarcated survey zone, we explored the known Bhur ridges which are prominent landscape features and appear like mounds from a distance. A pair of these occurs to the north of the village of Jogapura and is particularly noticeable in the monsoons as sticking out as a bare barren protuberance amidst a sea of rice fields. Once it was realized that the 'mound' is a bhur ridge it was no longer a surprise until we noticed that one field, which was planted with a crop of chana (Horse Gram) also displayed a fair distribution of artefacts which included a number of brickbats and some sherds, mostly of the Early Historic Red Wares. Rather quickly we were able to establish that the limits of the distribution were almost starkly limited to this single field and I was thereafter able to search out and interview the present field owner. The field owner said that he indeed had sourced sediment from the mound at Kausambi and had brought it here by bullock-cart and had redistributed it over the field as he had wished to increase his productivity. The practice he clarified was not common in the region, especially after the coming of the canals, but had been known as a remedy to cure and improve the yield of fields which were calcareous and *banjar*, i.e., low yielding. The primary reason for this seemed to have been that the present field had been levelled out of part of the bhur ridge and thus had not been constituted of the productive soil around. Apart from this, the survey could not locate any other such example which made the practice a known, even if extremely irregularly implemented, technique in the region.

The second protocol of study had involved a far more detailed examination of the surface assemblage and had attempted an ambitious project of trying to parse out as much of the ceramics

by period and by class as possible and see if those trends could yield any further information. While initially it had been planned to lay down two and if possible more of these assessment locations in every transect, this decision was changed for the following reasons. When the survey was scaled down from 50 % coverage to 25 % the number of such assessment spots was also halved. Further, it was soon realized that laying such detailed analysis upon materials that clearly seemed to be heavily mixed or the possible components of backdirt did not seem to be a worthy investment of time, time which was then spent in documenting the locations we did choose to do with greater care and details. The size of the area, a 100 m2, was large and required at least an hour to complete involving its various components, but was worthwhile in that it generated an average of 50 diagnostics in an associated assemblage. Of these 50 it was found that on average about half could be assigned a period on the basis of comparison with known and published types. In this exercise the fact that I had been granted access to the collections of the Prof. G.R. Sharma Memorial Museum proved to invaluable as no other preparation could have contributed as much to the possibility of implementing this project. A ready binder of known ceramic forms was also carried out into the field and codes were assigned on the basis of this. In the end 28 such locations were laid down in the area of the fortified site and owing to the massively disturbed conditions in the exterior only five such locations were attempted in the outer zone.

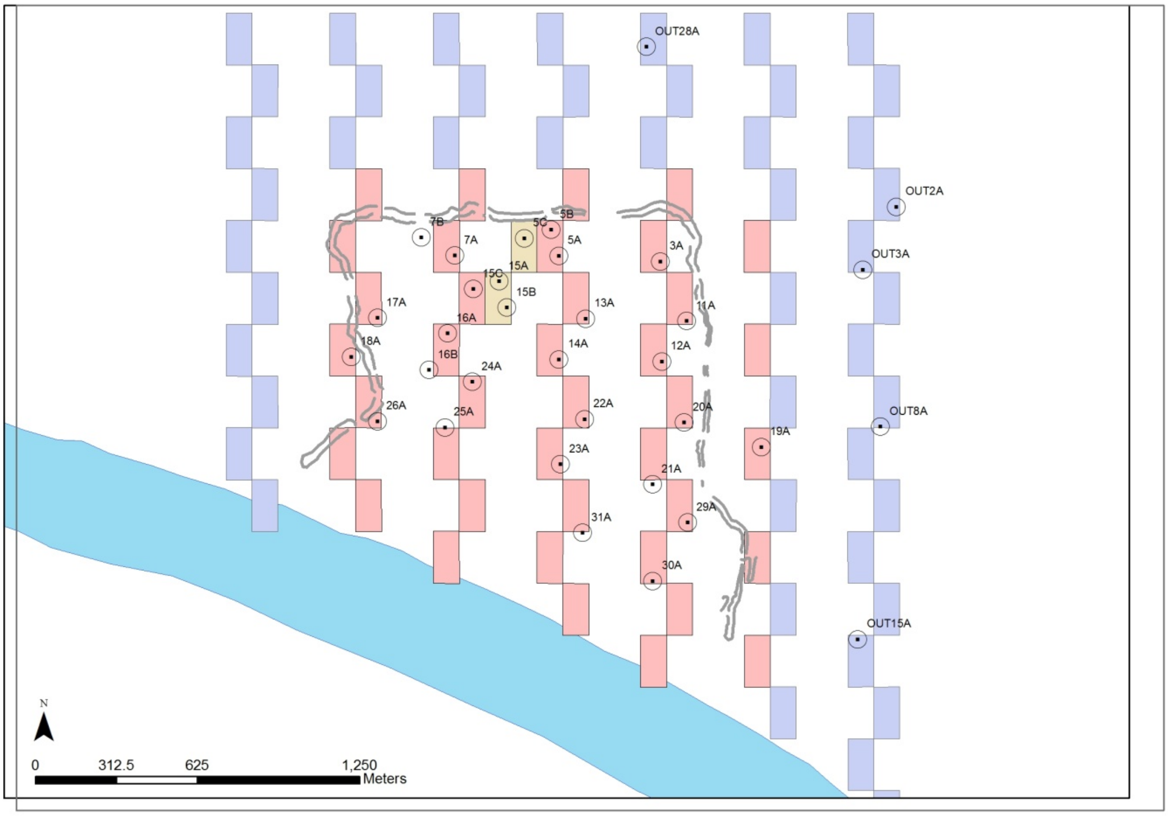


Figure 5-13 Map showing the location of 'Assessment locations.'

The most major stumbling block which this protocol of study encountered and had to quickly devise strategies to deal with was the massive medieval deposit which seemed to dominate the assemblages over large parts of the site. These assemblages had not been parsed out as a distinctive unit in any known report for the region and it appeared further that elements of these had been encountered in excavation and had been assimilated into the descriptions of the post-NBPW Red Wares of the first volume of the Kausambi report.[23] While some aspects of this assemblage were thus recognisable, others were not and their repeated occurrence needed a strategy which was devised for selected elements. The extensiveness of this later period deposit is demonstrated by the fact that at all but three of the twenty-eight locations studied within the fortified area the medieval wares were not only noticed but also seemed to be a significant component of the assemblage, something understandable given the direct relationship between stratigraphy and surface assemblages.

Within the first two days it was apparent that there were two major features to these ceramic assemblages which were worthy of consideration, and which were therefore subjected to close attention. The first of these was the presence of truly massive storage jar rims, which seemed to appear regularly and exhibit a repeated distribution of a select few types none of which appear to have been published. Their occurrence seemed to also provide partial explanation for the presence of a major percentage of thick sherds, which seemed to belong to these massive jars. Such thick sherds had not been anticipated to have had such a regular and considerable distribution and the association of the rims with them, including a higher proportion of such rims where there appeared to be a dominating number of such sherds, suggested that the distribution was significant and connected. The massive nature of such storage jars was thus not only verified in part in the field, by their association with a high number of body sherds which appeared to be associated with them, but it was realized after the survey that at least one rim type of these co-relates with a massive and intact storage jar that had been excavated from Kausambi by the Allahabad University and being large and unbelievably also intact, it had been stored safely in a corner. At present it has not been possible to photograph or draw this particular vessel but its nature as a truly massive storage of the capacity of certainly over 100 litres has been established as well as its chronological context to the last levels of the third broad period as recognised in the original ceramic chronology. In this manner, for at least the most conspicuous ceramic category, a basic relationship of visibility and breakage rates was established.

[23] G.R. Sharma, *Excavations at Kausambi, 1949-50* (Memoirs of the Archaeological Survey of India ;; Delhi,: Manager of Publications)

The second major feature of these late period distributions seemed to be that they appeared to be many more than just a single medieval Red Ware present at the site, something not unremarkable given that the site seemed to have had some form of occupation throughout the concerned period. It further appeared that these displayed significant and consistently identifiable variations in both surface treatment and decoration regimes and thus could be regularly identified and differentiated between. It proved to be more difficult to consistently maintain a record of where one of these was found and not the other, as we continued to learn more and more about the range and distribution of these wares throughout the course of the survey. Nonetheless this record was kept in as detailed a manner as possible, and the subsequent discussion will first try and document the variations and their possible chronological relationships, discussions about extent and distribution shall thus be considered when a synthesis for the site in different periods is being considered.

The first major and definite marker that what we were seeing was not merely more variants in an already extensive series of post-Kusana ceramic sequences but was a definitely medieval assemblage was provided by the finds of the distinctive blue-green glazed wares which have been attributed to the pre-Mughal period and are known to have had a fairly extensive distribution in the Ganga basin as well as in the Allahabad district. As has been reported in the previous chapter, the excavations at the pillar area had revealed the existence of a gritty white glazed ware in small fragments and this had at the time been suggested to have been an early attempt at producing glazed wares in India. In contrast, in the course of the survey we found an extensive distribution of the blue-glazed ware, which shares a complex, ill-established and overlapping chronology with the white glazed ware technologies. As this was a major tool in allowing us to build a new chronology for the site, and a new documentation for the site, careful attention was paid to even the smallest sherd found and some sherds were collected in order to provide a documentation of the range and variability of the glazed wares of Kausambi. The densest area (in the mid-eastern corner of the fortified area) proved to be one which proved to have a consistent deposit of the blue glazed wares and was noticeable for a distinctive ceramic assemblage which was thus taken as contemporaneous and associated with the blue glazed wares.

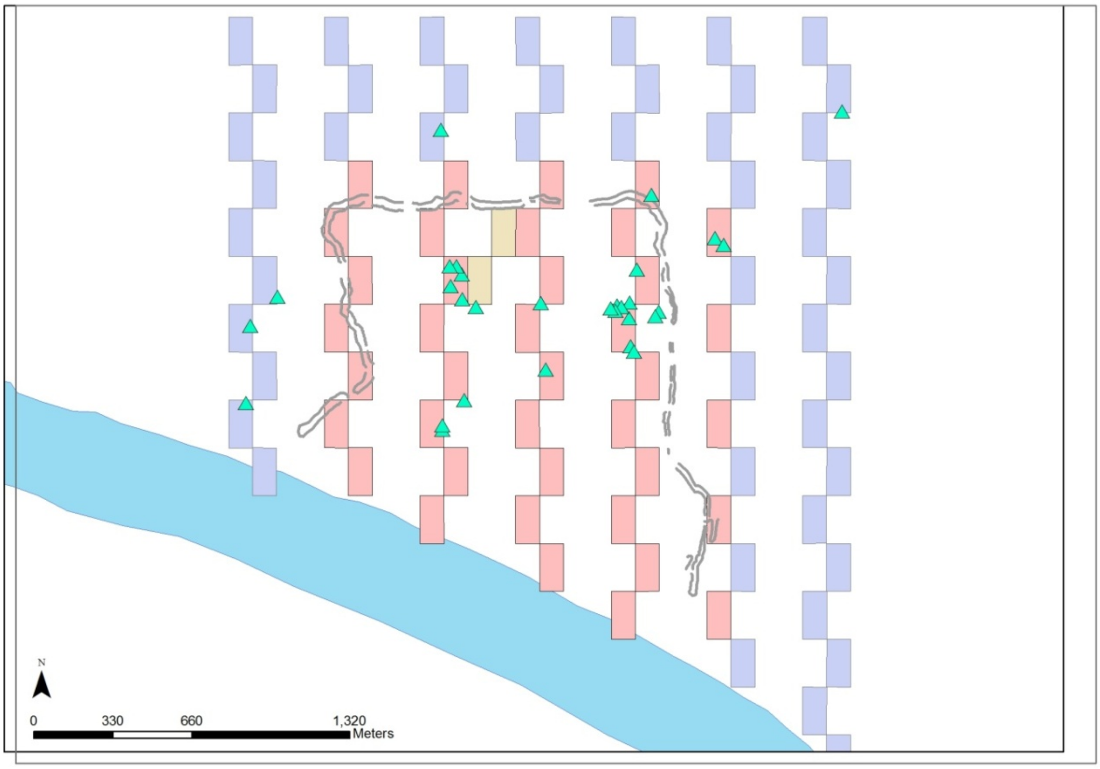


Figure 5-14 Distribution of Blue-Green glazed wares at the site of Kausambi



Figure 5-15 Typical example of the Blue-Green glazed ware. The specimen bears prominent geometrical patterns in a dark blue underglaze.

The principal variations in the blue-green glazed wares of Kausambi appear to have all been based upon a thick red and otherwise plain ware in all but one case. Within this basic type however there are clear indicators of painting in the forms of an underglaze in both a darker blue pigment as well as a white pigment which is delicately offset against the blue. Further, the survey encountered a small number of red glazed fragments, some of which were finely glazed and bore a very thin layer of glaze which was crackled in a manner similar to the blue glazed ware and suggested a broad similarity and connection. This was further verified and substantiated when we found a piece which bears the blue glaze on one side, probably the exterior and the red glaze on what is probably the interior of the vessel. One singular exceptional piece seems to have been produced under considerably different conditions and with different methods as its glazed surface bears a deliberately produced mosaic of two different sherds of green and additionally has been fired under a reducing environment as is represented by the wholly gray colour of its core.[24]



Figure 16 The unique and possibly Kusana period Glazed fragment

[24] I am indebted to V.N. Prabhakar's insightful observations about this exceptional piece of glazed ware. Additionally it may be mentioned that a similar piece had been found during the course of the Sringaverapura excavations and was related to Phase B of the Tank complex, dated to the early centuries CE through to a period of about the 4th-5th CE. That element was suggested to have been part of the pedestal of a terracotta and is raised here to underline the possibility that this piece may not at all be related to the well recognized medieval blue-green glazed wares.

The red wares which accompany these glazed wares have been generalized from the diagnostics of an assessment spot which fell in the greatest density of glazed ware distributions at Kausambi, and is based additionally also upon observations made at the site of Miran which has the highest concentration of blue-green glazed wares that I currently know of. The Assessment spot 12A produced perhaps the best evidence of the survey for having been a most well congealed group of ceramics of the medieval period without a significant component of massive storage jar sherds. The diagnostics from this location were collected and have been examined in detail after washing and the following statement is based principally upon the evidence from this 100 m^2 area. The red wares which seem to be associated with these glazed wares appear to have had an elaborate regime of surface treatment and qualify as finely slipped and partially to completely polished vessels. The slip is usually a bright red and there are a few examples of the decorative application of a thick black band. The pastes are usually fine to medium and inclusions seem to have principally been limited to minor amounts of sand and possibly some other materials which at present cannot be identified. The clay has been levigated and processed extensively and it appears that care and attention was given to the removal of any small stone particles. The prominent vessels which can be identified are a class of handi's which are distinguished and characterized by their acutely inclined and otherwise generally featureless rims. This type of Handi is a type which is known and documented and appears to have had a possibly long distribution in time. The handis are marked by a number of features and at the Assessment location 12A this variability was duly recorded in the apparent diameter of many of these Handis. These Handis also appear to have been distinguished from a whole series of earlier types by being markedly convex at the point of 'carination' instead of presenting a sharp angle. The shoulder pieces also show clear examples of having been plain as expected on the interior.

A range of sizes is again evident in a range of globular pots which are characterised by a medium bright and medium bright red slip. This slip is only occasionally polished to the extent that the Handi rims are. The globular pot rims of this assemblage seem to have been based upon a basic flange type which came at the end of a generally external projecting neck shape. The flange type itself has a number of subtle variations and seems closely allied in the addition of a groove and a band in some places on occasion upon the flange. A group of sherds which seems allied to the globular pots but a definite association cannot be made until a neck and rim piece is found are the frequently found fragments of 'corrugated' or grooved shoulders. These fragments seem to present a slightly lighter slip, both in texture and its shade of red but are distinguished by their distinctiveness as a decorative element, something which is securely known within the medieval repertoire.

Another distinctive type of this assemblage is a series of thick 'basin' types which are characterized not only by their light and indifferent slip but by their thickness and construction. Oriented at an

angle which seems to approximately straight up they are distinguished by the presence of a large and wide 'finger-groove' on the exterior below the rim. This feature and the generally thick nature of their construction suggest that they were wide-mouthed vessels intended to be moved around and support moderate to heavy weights.

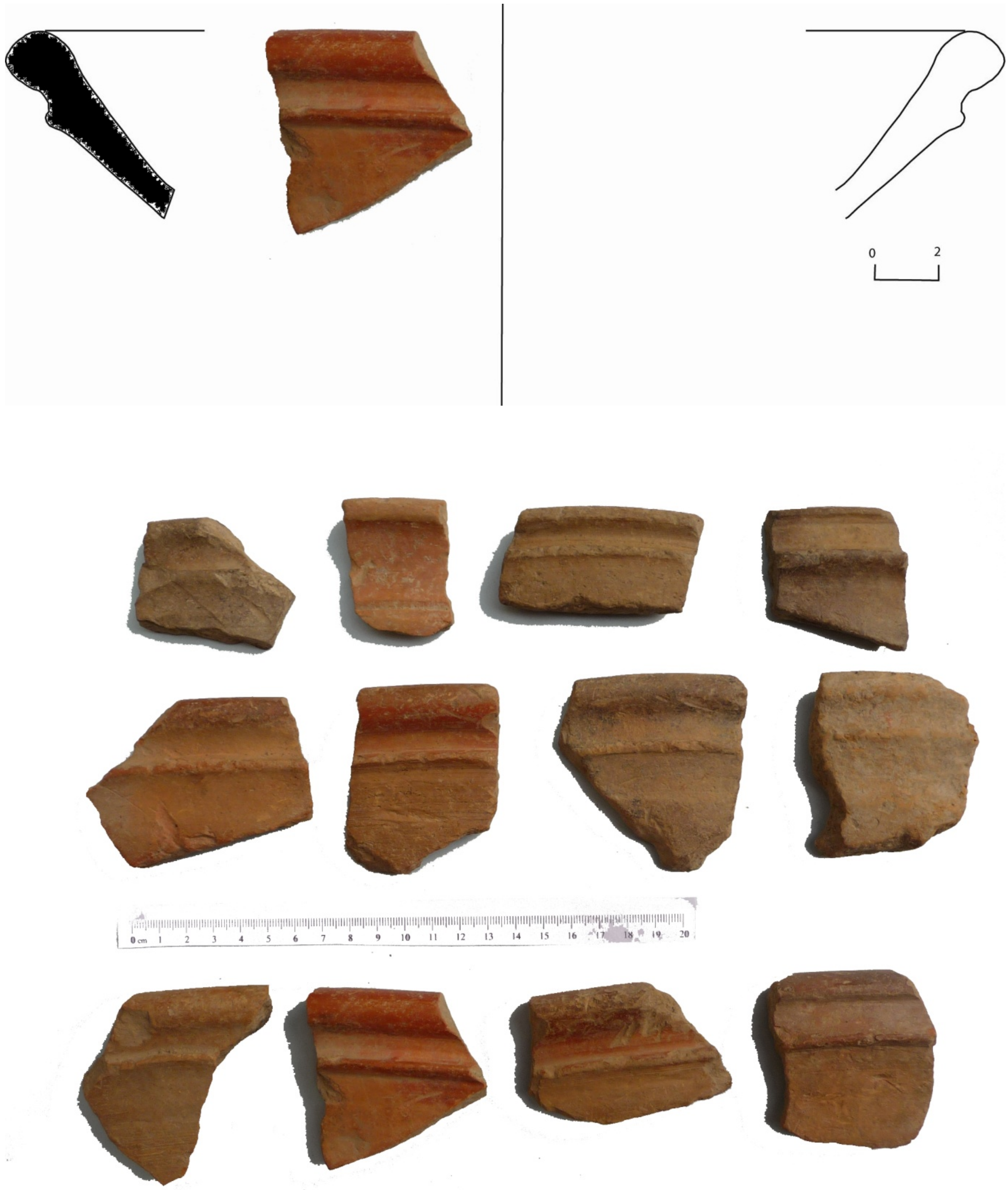


Figure 17 Medieval grooved red ware basins

Additionally, there appear to have been a few small bowls types which are marked by a distinct set of decorations and the assemblage is, at least in this area, equally distinguished by a lack of any types or rims or bases which would suggest the presence in any amounts of the 'knife-edged bowls'. Further there are, at Assessment spot 12-A, a few sherds of a distinctive chocolate slipped ware which bears a thin black slip upon a ware fired in oxidizing conditions and thus bearing an in-between colour. The vessel types in this class are unclear but a number of different wares seem to have occurred ranging from a regular medium type to a fine, thin ware with polished exteriors known only from a few small fragments. There are additionally only one or two body sherds of a red ware which is slipped and polished on the exterior. One of these bears a simple design in three parallel lines which was commonly found in other parts of the site and is an element of an apparently distinct and profuse repertoire of designs. Additionally in association with these ceramics was found a single sherd of a medium thickness red ware which is known to have a prominent zig-zag design as documented in many finds which in more complete specimens is associated with and occurs between bands of the three parallel lines. This entire design is apparently common and widespread and seems to be prominent of the sides of surahi like vessels. Additionally, two sherds presented examples of what are tentatively identified as thicker variations of the acutely inclined handi rim type. One of these, though eroded bears a distinctive punched design and the other bears a design which is here called the 'inclined row of dots design' and is known from better examples as well, especially at sites in the hinterland of Kausambi such as Bidaon. Additionally a buff and plain ware was easily made out amongst the plain and thin category and appears to have been distinctively associated with such a collection of ceramics on account of its being absent from practically every other studied selection.

An extremely distinctive but still unidentified vessel was found at this location and at other sites in the hinterland, and is notable for its extremely fine polished slip and its marked construction with a prominent raised finger band like feature. Another fragment bears a row of dots on another ledge preserved on that piece. The pieces are marked for their extremely distinctive quality and the equally marked entirely plain inner surfaces which are distinctive on account of either very pronounced wheel striations or markings of a process which I have not yet been able to identify.

These types represented at the assessment location 12A seem to encapsulate a whole range of the ceramics of the medieval period at Kausambi. However in addition the survey was able to encounter and document a series of further Red Wares which were not present at this location but were a regular or distinctive presence elsewhere. The first of these is constituted by a dull red slipped ware, which is not polished and is currently known from its distinctive paste and its distinctive style of decoration of the shoulders of globular pots. These wares are prepared from a paste which is

distinguished by a high content of organic matter, which often compromises the slip and introduces pores into the surface. Further, more regularly than not, the paste seems to have included pieces of grog, i.e. broken and ground sherds as a degraissant, a practice which is otherwise uncommon in almost all the known ceramic wares at Kausambi. Above all, however, the ware is made distinctive in addition to all of these constructions by the fact that a combed decoration is performed on the shoulder of what appear to have been globular pots, the only vessel type in which this ware is currently recognised. The combed instrument seems to have had the ability to make a series of 6 to 8 grooves and is distinctive. An allied and similar type seems to have been represented in what was a single find of a single small sherd which appeared plain but may have witnessed the erosion of a light slip and had been treated with a fine comb and displayed a larger number of fine grooves as produced by a comb like instrument which apparently had been run across the surface of the vessel in two different directions.



Figure 5-18 The finely combed red ware fragment

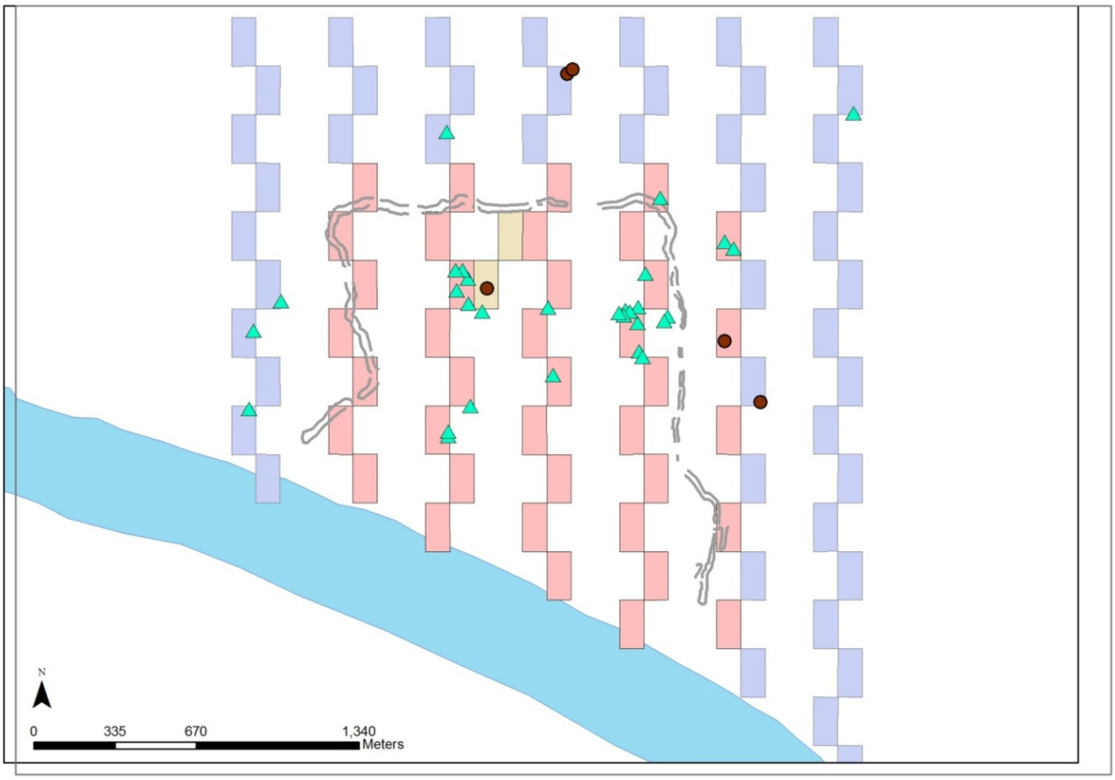


Figure 5-19 Map showing the distributions of combed Red Ware globular pot fragments as compared with the distributions of the blue-green glazed ware.



The distinctive RW combed Globular Pot or Surahi shoulder sherds which appear to be a marker of a late phase within the Medieval ceramics of Kausambi

Another group of ceramics included fragments extremely similar and identical to other specimens which had been published from both the Bhavariagarh area and the palace area under the category of early incised wares. The fragments this survey encountered were both either plain or completely eroded, but were distinguished on account of their lightness and yet well-fired nature and the relative fineness of their paste in addition to what were the distinctive decorative features. These wares were clearly treated with a more elaborate programme of incised decorations at the leather-hard stage, and while some of these seemed to indicate an instrument which may have been like a loose comb, the decorations on the other were clearly preformed by hand, in individual strokes across the surface of what appeared to be a globular pot like vessel.

On the penultimate day of the survey it was decided to venture outside of the demarcated zone of the survey to an area between the villages of Pali and Kosam Inam where I had been alerted that another area littered with ceramics existed. It is here that we encountered a ceramic assemblage which at the time appeared wholly new and came as a surprise after the extensive acquaintance we had just had with the ceramic assemblages of the entire area. After a more studied comparison it was evident that while the Pali mound (as it is referred to locally, although it is closer to Kosam Inam than to Pali) presented wares and types in a much larger and concentrated distribution than we had found anywhere else.

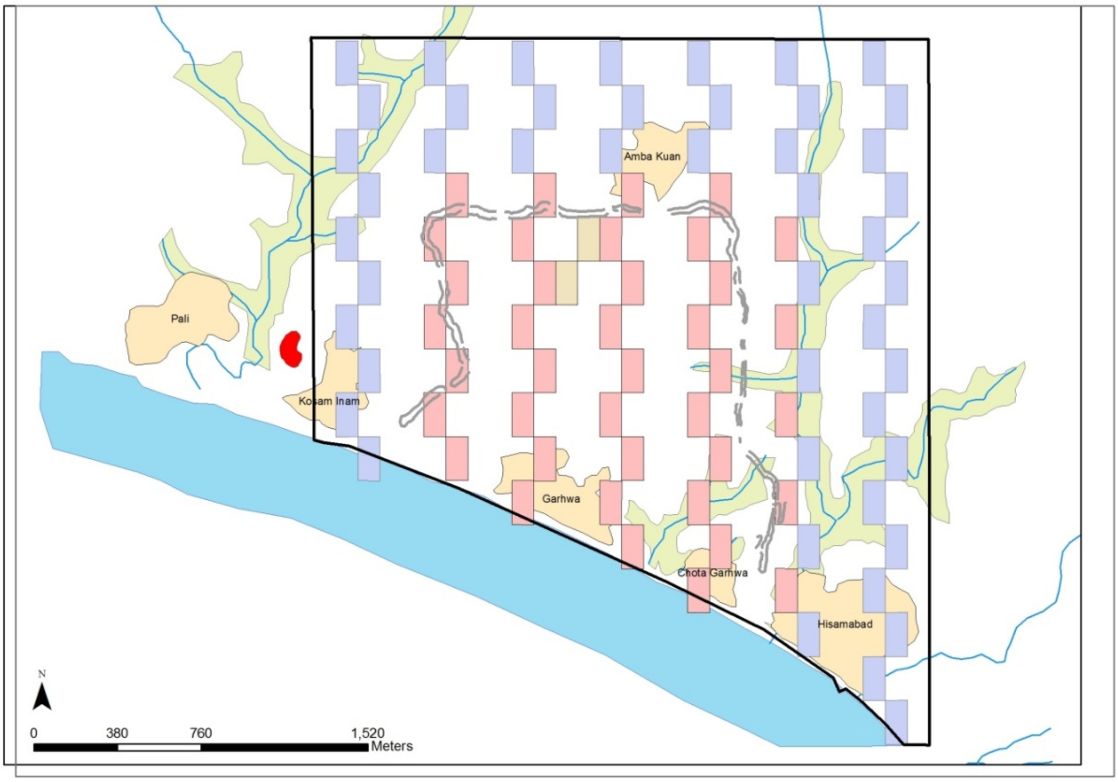


Figure 5-20 The location of the Pali mound (as marked in Red), between the villages of Kosam Inam and Pali.

Pali's ceramics included a prominent red slipped ware which on account of an inspected twenty large fragments of globular pots and what appeared to be medium to large sized storage jars. These were characterised by a grooved or corrugated shoulder, similar to what had been observed at Assessment spot 12 but in a more developed and pronounced as well varied form. Additionally, a red slipped ware chillum type was found here suggesting a chronology of a slightly later period. In addition, and most striking, there was the evidence of what appeared to be a group of black-slipped wares which were fine, thin sectioned and appeared completely distinctive on account of their polished surfaces, distinctive disc based bowl forms, and a series of inter-related deeply incised parallel grooves in terms of decorations. A solitary piece of a white glazed ware, the only such fragment the survey encountered, was also located in this area. While it is tempting to suggest that this complex altogether represents a separate cluster within the medieval, any suggestion to that effect must remain tentative for now as these are surface distributions which have been sampled by means of a surface survey and not the results of an excavation. However, it must also be said that this is perhaps as distinctive a set of ware distributions that a surface survey can hope to achieve, especially as despite paying careful attention to it, not a sherd of the blue-glazed ware was found at Pali. Further, there is a fine Mughal period black slipped ware which has been encountered at the Fatehpur Sikri excavations, and while the forms nor any description of it at any length has since appeared, the Pali black slipped ware may be considered as perhaps relating to that ware.

The discussion above has focussed on and has discussed at length the later period ceramics at Kausambi and has done so in the hope of demonstrating that the method of surface surveys can generate meaningful and new data about a site, including even those where only the topmost few centuries may be meaningfully represented in terms of the surface assemblage. At the same time, a statement must be made about what the survey encountered for previous and other periods. In most of the Assessment spots which were located in a context in the Core area it emerged that the surface assemblages presented a mixture of materials from the Sunga-Kusana Red Wares alongside those which are termed Gupta and post-Gupta. In general it was in such contexts that the massive storage jar types and their body sherds also seemed to dominate in weight and proportion over the other materials and seemed to be by far the most distinctive and ubiquitous types at Kausambi. The presence of such mixed materials in general did not permit further speculation or the building of a hypothesis about the manner in which surface ceramic assemblages may represent trends of the ancient activities which had led to their deposit. It is important to note here that this survey was, of course, aware of the manner in which all archaeological deposits are conditioned and mediated by a whole gamut of what has been called 'c-transforms' or culturally specific forms in which people deal

with material cultures and especially in the stage of artefact discard.[25] Nonetheless, the idea which had informed this programme was that even if disturbed by modern exposure and conditioned by ancient burial, it should be possible to identify and distinguish ancient domestic dump as it exposed through to the surface from say an ancient dump of industrial waste.

The survey was successful in documenting occupational histories of various sectors of the site in many ways. At the assessment locations even if these were found to have been mixed, the evidence of all the periods put together was useful and most often mixed areas seemed to demonstrate continuity from the Sunga-Kushan Red wares into a later period. The most noticeable of such areas was encountered in the set of transect blocks to the North of the Palace area as we surveyed walking towards the Northern fortifications. Here there are two major nallahs which drain the surface runoff from the mound and are increasingly proceeding further into the mound as well as incising deeper. Both of these confirmed what we saw on the surface in terms of reasonably large layers of the Early Historic and later, including more often than not the extensive exposure of architecture. Additionally, what the inspection of the eroded sections yielded most valuably was extensive evidence of an entirely encapsulated NBPW deposit which could be seen in thick deposits often towards the base of the incised sections.

In contrast to this picture where ever so often we would be counting massive densities of early historic tiles on the surface and measuring equally thick NBPW deposits in the nallahs, the survey encountered a completely different and somewhat unexpected deposit in the area where we approached the river walking from north to south in the region between the villages of Garhwa and Chhota Garhwa. At these locations we encountered in two major zones areas where there did not seem to have been any deposit later than the early historic. Further, at the assessment spot of transect 29A the survey encountered unexpectedly a surface assemblage which appeared to be almost entirely from the early and middle NBPW phases. This represented a unique opportunity to study not only the NBPW and its associated wares but also how different sectors of the site had evolved and how the surface archaeology of the site may yield windows into them. Another such instance at the Assessment location in the Outer transect 15A confirmed this possibility: there are areas where the NBPW phase seems to have been the last layer of occupation for the specific locality and that modern processes of agriculture and land use have exposed them. Their surface archaeology has helped to generate a picture of the shifting occupation within this larger region and to break down the monolithic ideas of occupation, its extension and that of site. Specifically it has documented that even within the fortified zone there has been a complex history of occupation,

[25] Micheal Schiffer, *Formation Processes of the Archaeological Record*. (University of New Mexico Press, Albuquerque, 1987)

even 'desertion' and abandonment which any consideration of the site and a consideration of urbanism needs to consider. In this effort while ceramics were the main key artefact as a robust chronology and a wide dataset of known and distinctive types exists for different periods, the contribution of other artefact categories which the survey encountered will be considered below.

V. Crafts and their production at Kausambi: new evidence from the Survey

If one peculiarity of the early and large scale excavations of the 1950s and 1960s may be pointed out, it is the almost complete lack of evidence for craft production activities. This is in itself not a very peculiar matter considering the fact that after the initial excavations at the pillar area, subsequent excavations were not conducted in complexes where one would have expected to have arrived at such evidence. This survey, with its wider coverage, surprisingly hit a large and diverse range of discrete assemblages pertaining to craft production activities and this section will attempt to describe those.

Sandstones in the Doab: A Tale of Pabhosa Hill and Kausambi

In the course of the survey of the area to the North-West of the fortified zone, the Pali nallah comes to dominate much of the landscape as its progressively erosional activities here have increasingly disturbed much of the area. We knew that there must have been signs of occupation in this area as in 1938 N.G. Majumdar had reported that 'signs of ancient stone workings were still visible' and further that, remarkably enough his excavations along the bank of the nallah had yielded an inscription recording the setting up of slab by the side of the stream (presumably the same nallah) as an act of a gift by the stone-cutters guild of Kausambi. The survey encountered a massive complexity of evidence from the area and it is best described in three parts; the first of which describes a massive mound constituted almost solely of lithic debitage which had subsequently been heavily incised by the Pali nallah and thus allowed for a study of its section. Secondly, immediately to the south of this in the adjacent fields there was a marked distribution of early historic and later red wares. The third component came as a surprise as further to the North in the midst of disturbed agricultural fields undergoing severe sheet erosion towards the Nala, the survey encountered its densest occurrence of early ceramics, i.e. contemporary to the NBPW, outside the fortified area.

This is perhaps one of the largest sites devoted to stone-working which has been reported in the Ganga region and is notable for the fact that none of the stone is local and must have been transported to the

site at the expense of considerable cost and energy. The site in itself is approximately 650 metres away from the nearest gateway of the fortifications and is at least 1.5 kilometres away from the Yamuna along the Pali nala. The main site is today referred to as the Patthar Khan (Stone Mine or Quarry) near Nauhai by villagers, thus referring to it as a veritable stone mine / workshop. As the following discussion will make clear, there are valid reasons for these associations to what appears today as a wasteland like area. As we approached the site it was clear at once that the mound had witnessed a complex and extremely transformative history. On first sight, it really did resemble a mine. Indeed, the central most point of the mound, far from being its highest point, is actually its lowest, and indiscriminate piles of stone chippings (usually no bigger than a size of 10x10x2-5 centimetres) were littered in piles which rose upto a height of 5 to 6 metres above this central point. It slowly became apparent that whatever the site had once been, the survey had come upon it only after it had subsequently witnessed an all-transforming set of alterations. A preliminary examination of the lithic materials revealed a range of sandstones, mostly all fine and tough, the buff-gray group of which seemed to co-relate with the nearest known source at Pabhosa hill, 4 kilometres upstream on the Yamuna. Other lithic categories included a red and a yellow sandstone also known from Vindhyan exposures and further, also yielded tiny flakes and debitage of quartz, agates and a single piece of carnelian. Occasionally, large slabs of sandstone were in evidence, especially those which seemed to be from the Pabhosa hill, and these often seemed to be over a metre in length. One partially carved piece betrayed activities of a later period which helped understand the transformation of the site: this was the presence of an unfinished Kolhu stone. This and the general nature in which the site had been dug up and unpackaged so to speak seemed to indicate that a mound had once existed, perhaps for a considerable length of time where stone-working had been a significant activity but later this same mound had been almost completely dug up in the hope of recovering stone blocks which were suitable for further use. This is something that we can presume was not only a feature of an effort towards Kolhu production but had also been articulated at a more diurnal and basic level as many of the stones, used in houses presently standing in the village of Nauhai, too seemed to have been sourced from this area. While the nature and degree to which this site had been disturbed was no doubt disappointing it was clear that there was major evidence here of stone-working, and principally on the ground of the ceramics and of Majumdar's inscription, its beginnings seemed early.

The fact that the Pali nallah seemed to have incised a major section through this mound was a matter which drew attention in the first place as it suggested a scale of activity and a transformation of the landscape which I had not then anticipated for this area and for a stream of that nature. Closer examination of the section, however, revealed completely different and new dimensions about the pasts of the area and the site. As **Figure 5-21** represents, the section presented a complex history to the site and shall be described as follows:

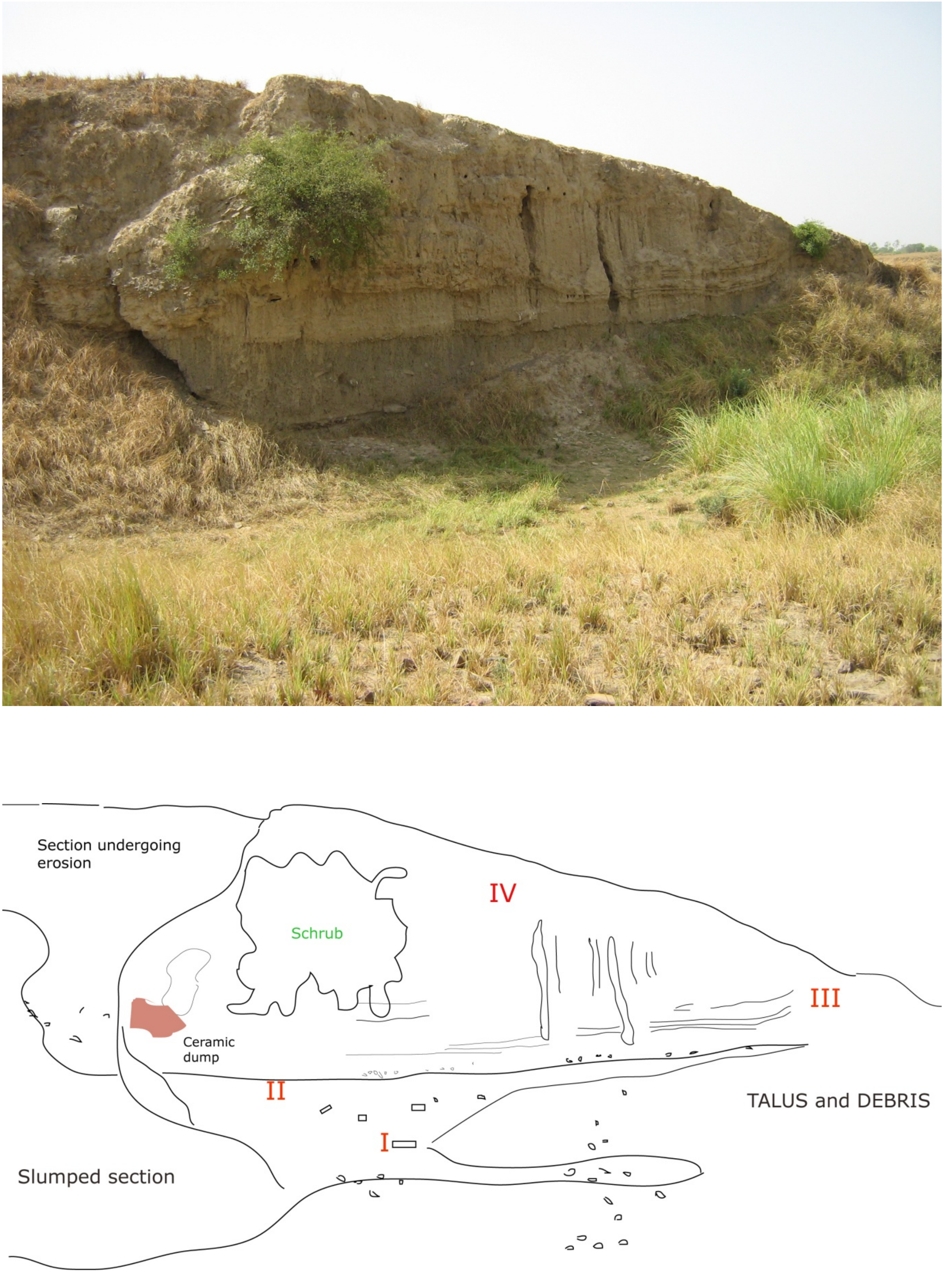


Figure 5-21 Photograph and schematic representation of the eroded section of the Mound at Nauhai.

At the base of the section there appeared to have been the first visible ‘working floor’, marked particularly by the presence of the large dressed slab like piece of sandstone which is adjacent to the icon I marking sedimentological unit I. The sedimentology of the unit itself was distinctive as it was a clearly clay rich and low energy deposit suggested something akin to a flood, something which was also suggested by the manner in which some of the smaller fragments of debitage at the workshop, were suspended in the upper layers of this sedimentological unit. The marker II is intended to draw attention to the marked horizon between this unit and the next which is a clearer deposit of alluvial fine silts and bears much less clay. Adjacent and just above marker II were the definite and continuous presence of small pieces of debitage again on this level, indicating that the site had witnessed some usage and habitation at the stage. The marker III is intended to draw attention to the nature of the bedded deposits of alluvial fines which is clearly demonstrated here. Probably associated with levels which come to be associated with the later phase of these bedded deposits is a major ceramic which was examined and seemed to contain only eroded red wares prominent amongst which seemed to be simple bowl types which could be placed to after the first few centuries CE. The marker IV on the schematic diagram draws attention to the fact that similar deposits plus possibly some which were part of the mound building and perhaps even disturbance activities are what cap the mound and the visible section.

The Nauhai section has demonstrated fluvial pasts in historical timescales that the survey and all previous studies of the Kausambi region had otherwise been completely unaware of. The Pali nallah had hitherto not been suspected of any aggradational capacities nor did the preliminary remote sensing work for the region suggest any major fluvial palaeo-activity in the region. The Palu section nonetheless has documented that these are important factors in the study of the Kausambi region and have highlighted the need to both date the section as well as to prospect more widely than this survey was able to towards other such exposed sections and built towards a sedimentological past of the Kausambi region from other means as well. The section nonetheless established that a major stone workshop had existed in an early period and seemed to date back to the first few centuries CE at least if not earlier.

Given this, the ceramic scatter in the adjacent fields, which have in recent years suffered the quarrying of sediment for the purposes of the renewal of the road which leads to Nauhai and have also suffered since due to forces of erosion, was extremely significant and offered the possibility of tying down the habitational component of this workshop. The ceramic scatter was medium to dense in these fields and yielded red wares which were considered to have been of the early and mid first millennia BCE with some types even suggesting a later component.

As the survey covered transects further to the North of the Patthar Khan we encountered a set of fields along the Pali nallah where by some amount of mutual agreement land consolidation has been possible and major land improvement works have been attempted. Most of these have involved bunding the nallah and the fields respectively often in the form of brick walls and mud bunds. The surface here was largely devoid of artefacts until we encountered one field where sediments of a depth upto half a metre and more had been quarried out to construct exactly such a bund. The topography however had not suited such a plan and intense sheet erosion was now proceeded to bring more and more sediment down to the side of the Nala and the bind. It was here that a massive pottery dump, marked by vessels which had undergone far less post-deposition and even post-re-exposure breakages, was visible in a massive cluster the density of which for sherds of these sizes and preservation was not matched anywhere else in the survey. The recently exposed ceramics included a large collection of early gray ware and black slipped ware dish types, alongside a classical example of the Ahichattra X-A as well as a relatively complete example of the form commonly referred to as the Sunga bowl. This 'site' also provided a brick wall, of what are generally placed as Kusana and Gupta bricks exposed in one corner of this quarried field. This site then raised two major issues: it placed occupation in the Nauhai area back to an earlier period, which could perhaps be easily placed in the mid-NBPW phase. Additionally, the evidence from this site and of the section combined to raise the issue and major problematic of considerable landscape change and evolution in historic times, at least in this sector of the Kausambi region by forces currently not completely understood. It also has significantly raised the possibility that such small sites may even have witnessed burial under geological deposits such as those evidenced along the Pali nallah.



Figure 5-22 Surveyor Ram Baba sits amidst the massive and dense exposure of early ceramics at the quarried field past Nauhai

The relationship of the early site to the chronology at the stone workshop remain an open issue as the fields adjacent to the workshop themselves did not reveal any early ceramics but may have concealed some by way of burial. What these three sites have established is the fact that in significantly different conditioned the area had seen a series of small settlements which were marked by a professional class of stone-workers who no doubt provided important services to the city that was nearby but also had seemingly defined their own distinctive presence in the landscape here.

The consideration of lithic utilization and sourcing strategies at Kausambi as a theme is worthy of much further consideration and the next instance which shall be raised here from the findings of the survey is one which further helps develop a picture and a chronology of how these activities were structured. Whilst the survey transects did not cover the entire area, the bank of the Yamuna was traversed separately in an effort to understand the geomorphology of the area and to see if there were any significant archaeological remains, which was considered unlikely as this area next to the active channel receives fresh sediment from the rising river almost every alternate year. However, the channel also scours its own bank when it recedes or even when it is in spate and this small bank becomes subject to fast moving currents. It is apparently in the course of such river bank action of the Yamuna that the following large stone blocks had been revealed a couple of years ago and they are still in the same position that they had been found in.

The blocks are all of a gray to buff sandstone but it must be noted that in their present condition they are considerably patinated. They seem to have been chiselled out by a known metal and wood plug multi-point method which has a long history in many regions of India. The marking seemed to all measure to a device, probably of Iron which was approximately 10 centimetres in width. The two blocks on which it had been possible to witness these marks as they lay buried suggested that the quarries required only about 10 to 11 such incisions to detach a block. Importantly, the blocks seemed to have been faced on the interior side, i.e. the side that they had been thus detached from a larger block from. As far as this was visible this was not the case for the other faces which had been dressed in a far more broad and casual manner. The blocks all roughly measure 1.30 x .50 x .50 metres and seemed to have represented an important dimension in which stone was transported to meet expected uses. One of the blocks bore prominently on one its smaller faces a two letter inscription which is important as it allows us to date the age at which the block was moved to Kausambi.









Figure 5-23 Selection of images from the findspot of the sandstone pillars along the Yamuna bank at Chhota Garhwa. Top row Left, the block with the early inscription. Right, a general view of how the blocks were found. Bottom row, Right, a view of the quarrying techniques. Bottom Row, Left a moulded fragment which seems to date to a later period of circa. 5th-6th CE and later. Note the pillar in the first photo is up-side down, at least from the point of view of the orientation of the letters and the subsequent photo and tracing have been rotated to present it in its correct orientation.

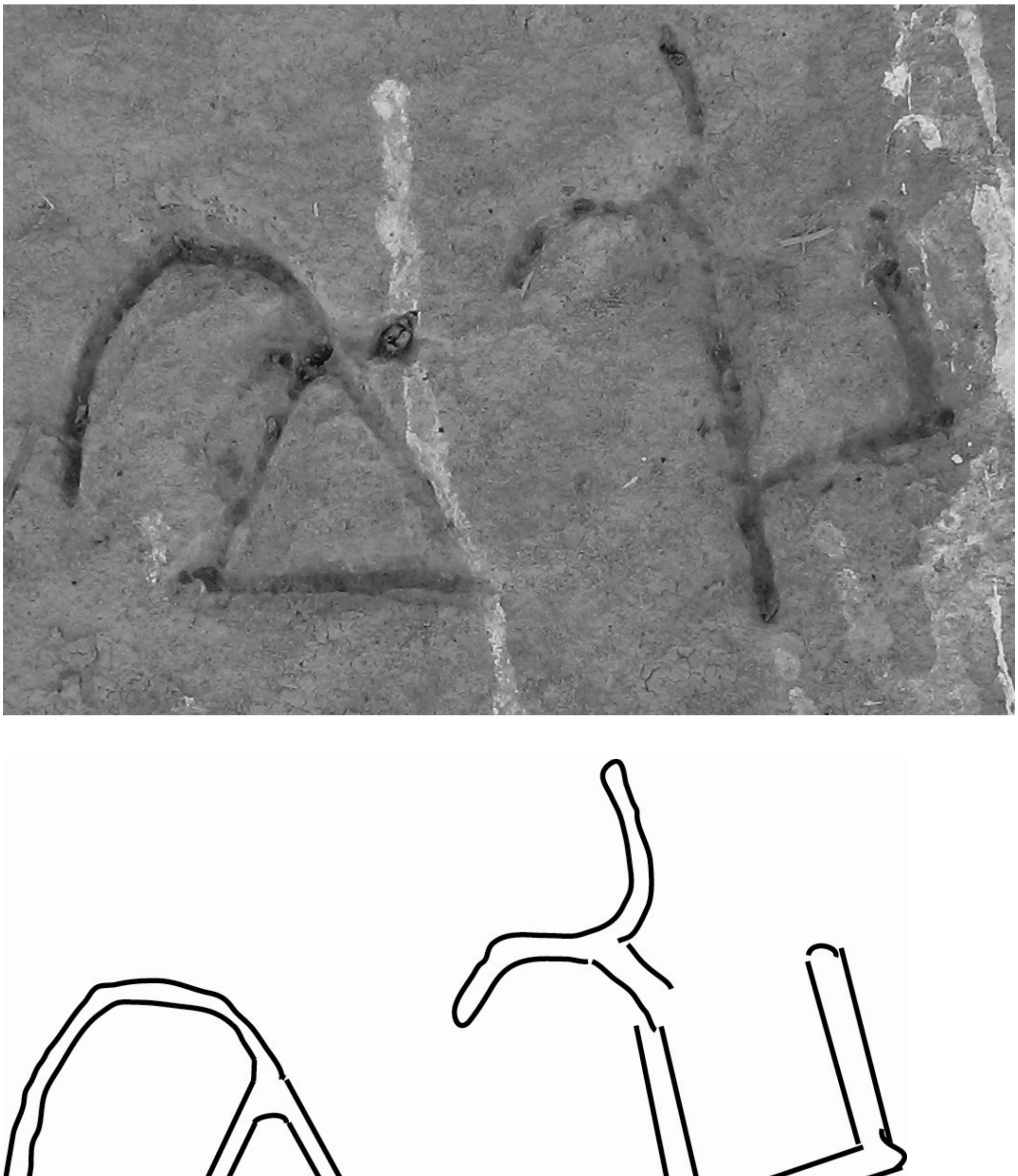


Figure 5-24 Close-up of the two-letter inscription and a tracing of the same found at the Yamuna bank at Garhwa.

<u>Suggested Decipherment</u>

(Ai) (Jho /Jňo)

The orthography suggests a date of the third to first BCE when these large stone slabs were moved down to the river and off-loaded at the riverside at Kausambi.

As the above suggests, the two-letter inscription is probably an acronym, initials or some form of glyptic communication likely between the quarry-workers and their customers at Kausambi. The orthography of the second letter in particular is what suggests an early date as the form rapidly evolves in the early centuries of the use of Brahmi and is quickly replaced by other variants not only at Kausambi but also generally. It must be mentioned, however, that the pillars while seemingly associated may not have actually been so and may represent different events. Two pieces of evidence suggest this. One is the frequent find of small architectural carvings which have been mutilated in recent years by the village children in the course of their play but suggest a clear date of the Gupta and post-Gupta periods. Further, at some distance from the present location, there was an additional pillar which had been unearthed at some point and owing to its clearly and intricately carved function as a pillar of a temple complex, it had been transported and currently serves as a pillar at the Kausambi thana (Police Station) temple. It was inspected and it revealed a clear decoration of kirtimukha and jewels motifs that are common on sandstone ardha-mandapa pillars from the Gupta period onwards. The combined evidence thus suggests that the sandstone trade to the Kausambi area may have even taken forms where fully sculpted and finished pieces were being brought to the site. Alternatively of course, it is equally possible that the piece had been manufactured at Kausambi and was intended to be transported elsewhere. Such speculations aside, the small two-letter inscription and the sculpted pillar indicate that the sandstone trade along the Yamuna to Kausambi was a longstanding and sustained one.

The site of Mainahai has been described previously and is exceptional under current circumstances for two reasons. The area again is littered with massive sandstone debris and debitage and the same had been encountered in the course of excavations there which suggested that there might have been another sculptural workshop at the site. Indeed, this is borne out by the range of sculptural artefacts both finished and unfinished as revealed at the site. Additionally, in the course of the survey's visit to this site, it was found that massive sandstone blocks, bearing large initial flaking scars, were still being exposed at the site and this also implicates it in the networks of the procurement, movement and utilization of these blocks.



Figure 5-25 A sculptural fragment bearing winged addorsed lions and a partially sculpted large sandstone block in the midst of fields at Mainahai

Further evidence for the consideration of activities which centred upon the production of images and goods from these sandstone pieces was found in many different sectors of the site and needs to be considered here. In the course of the survey during the coverage of Core transect 31, a large mound was encountered towards the very end of the transect which rose prominently above the neighbouring areas by a good 3 to 5 metres in different areas. The area, which shall presently be discussed again, was marked by clear NBPW phase deposit and a major early historic deposit as well but with no clear indicators of how far into later periods that occupation continued if at all. It was observed that part of the height of the mound was due to the massive nature of sandstone debitage which was present in the form of chips and larger cobble-sized pieces which seemed to be visible in section as well. Initially, it seemed to be worthwhile to understand whether such debitage is actually a representation of the ancient deposit or is the result of dismantling and unpackaging of the area by the later search for construction materials. It became apparent here though that the massive scale of the debitage deposit did not suggest any such later nature and further, a consideration of the general patterns of scavenging uses suggests a selection of larger and easy to use pieces rather than anything which requires any such massive modification. At the assessment spot for Core transect 31

these were quantified and seemed as dense as to total upto 16 Kg per 100 m2, a massive density for stone debitage, and a similar density was seen to continue over an area of at least .25 Hectares.

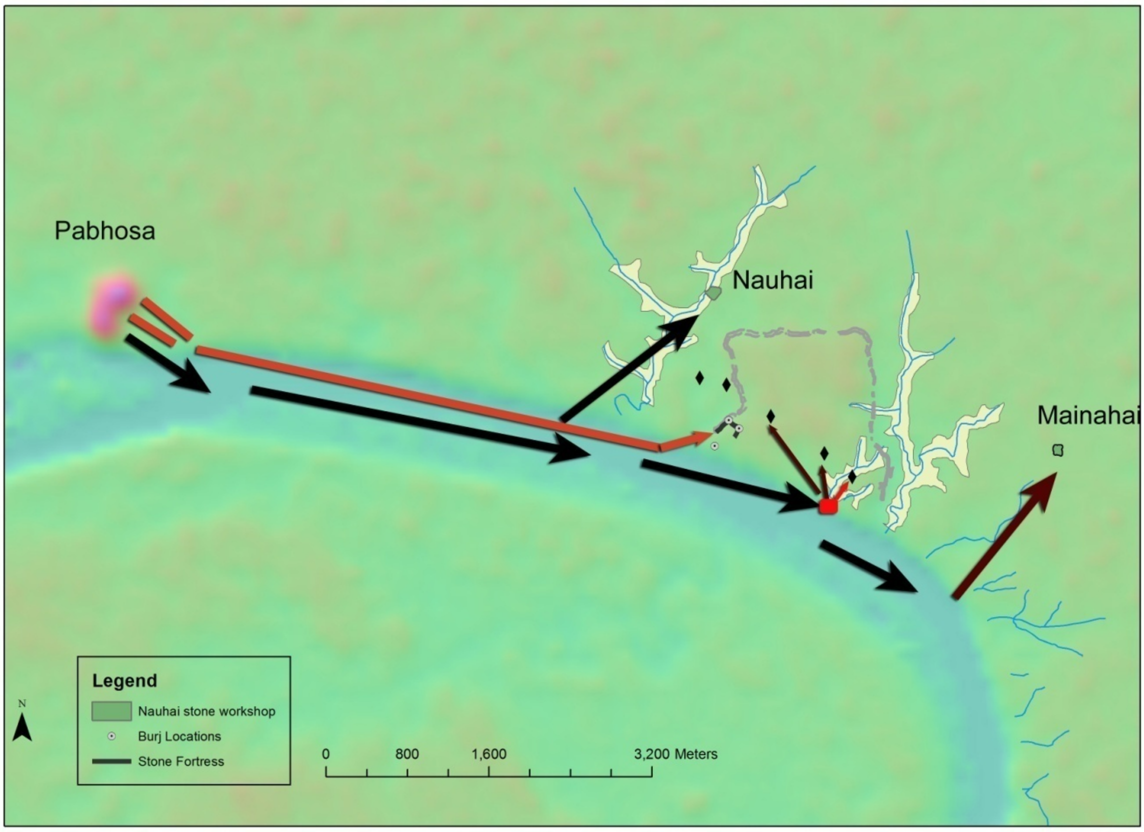


Figure 26 Hypothetical view of stone movements from Pabhosa to the Kausambi area. Black arrows indicate the known patterns for the early historic with the landing site on the bank shown as a red rectangle. The red arrows from Pabhosa indicate the massive quarrying in the medieval period which brought the material only till the closest segment of the site where the Medieval Fort stands.

Close attention was paid to the sandstone chippings at this location and at other such smaller distributions as and when they were encountered, but the survey could not discern any major difference in them except for their clear nature as debitage in the reduction of what appeared to be large blocks similar to those which had been found at the riverbank. In addition to this concern with discrete pockets of sandstone debitage, the survey had made it a consistent part of the general evaluation of the covered transects to map and document every small lithic fragment which it encountered. Of these, small, often decorated and very fragmentary sandstone objects were a frequent find and these were not collected in any of the cases as they held little prospect for identification of the original object and further they could in all cases be identified with the Pabhosa grade of buff to gray sandstones. Selections of these were photographed in the field as a record of what was found. On account of their entirely non-diagnostic nature and on account of the fact that

they were found in surface assemblage which broadly ranged from the Early Historic onwards, they can only be considered in a general sense. However, their distribution is significant and demonstrates that the consumption of small sandstone artefacts was a major artefactual component.

A further dimension of the major sandstone assemblage seemed to come from the mound which underlies the present village of Hisamabad and was documented during the course of the survey as betraying a major NBPW phase. As is the custom, stone sculptures unearthed during the course of routine activities by villagers are traditionally dumped under trees and are then subject to indiscriminate worship in general. An example of just how indiscriminate this reverence for unearthed and shaped objects can be was encountered at Hisamabad when a whole cache of broken sandstone legged querns were found being worshipped similarly under a tree. This cache cannot be underestimated in its value as 'legged querns' are an artefactual category of the mid-NBPW phase through early historic are a marked and distinctive type of elaborately prepared quern and have a pronounced and distinctive morphology as well as distribution in addition for generally being acknowledged as rare finds. Querns are objects which are of diurnal and basic usage and yet, as a recent study in a different context has highlighted, the selection of the right stone type is an essential part of the social construction of a quern. As Law has demonstrated, querns are important objects and people are often willing, in prehistoric societies, to procure them over long distances.[26] The legged quern is distinctive on account of its shape and the morphology of the angular and regularly chiselled legs which it is provided, a technique which is notably time-consuming and a design which is not economical on the utilization of stone. However, their widespread distribution and yet their relative rarity as compared to other more basic saddle-querns fashioned on sandstone suggests that they were valued and utilized. We do not at current have any information on the nature of the sandstone which these legged querns have been found in but they are one of the many potential items of the early historic trade which are transported over long distances while until now no known production sites have been found.

[26] Randall William Law II, Inter-Regional Interaction and Urbanism in the Ancient Indus Valley: A Geologic Provenience Study of Harappa's Rock and mineral assemblage, PH.D Dissertation submitted at the Department of Anthropology, UNIVERSITY OF WISCONSIN – MADISON, 2008



Figure 5-27 Detail of the cache of legged querns under the Hisamabad tree.

The cache which was deposited under the Hisamabad tree thus assumes a greater significance, especially as they all seemed to be of the Pabhosa grade of buff and gray colored sandstones. While this is admittedly thin ground to go on until a full-length study establishes the range and the diversity of sandstones which were utilized in the production of such legged querns, it does seem plausible to suggest that somewhere under Hisamabad there once existed at least a regional scale workshop which produced these objects. Notably, none of the specimens under the tree were complete, and further many of them seemed to have snapped, perhaps in the process of manufacture. [27]

Of the mass of sculptural fragments which are curated at a whole host of museums, most specimens again seem to have been fashioned on a gray or buff sandstone. There are however notable exceptions to this and the most important of these seems to have been a pair of Buddha statues in the mottled Mathura sandstone which had been brought to the site of Kausambi famously in the second year of the reign of Kanishka. Apart from these, the survey has been able to document

[27] The discussion here of querns and their role in prehistoric societies as well as the nature and implications of their trade has drawn substantially upon the work of Randall Law and I am further indebted to him for a conversation from which I came to learn more about how to place these objects and build towards an understanding of these.

another sculptural fragment in a different red sandstone, fragments of which were found at the Nauhai workshop, from the outlying site of Baudhan. Baudhan represents again a massively disturbed site which has been levelled and further impacted by the construction of a canal and then a road pretty much through it. Previously a large Buddha image used to stand here and has since been removed to the Allahabad museum although the site and the locality continue to bear its name. Part of the site survives in the form of a medium to dense scatter of Early Historic ceramics in the area of about 1.5 hectares and it was here that in the last six months a pink coloured bust had been unearthed in the course of the digging for a foundation. Sadly, the image has since been mutilated by the boys of the nearby village but it presents a record of the utilization of a sandstone distinct from that available at Pabhosa.



Figure 5-28 The mutilated bust at Baudhan in a pink sandstone seemingly sourced from an area across the river in the Vindhyas.

Two further episodes of the major use of stone survive till today and need to be brought up in the context of such a discussion. The first, which is by far the most massive scale on which stone was ever utilized for a single complex, is that of the medieval stone fortress. The acquisition for this was done on a monumental scale from Pabhosa and seems to have resulted in quick and destructive quarrying of an order which has destroyed the only approach up to whole areas of one of the two peaks at Pabhosa hill. The procedure for the construction of the fortress seems to have involved the bringing of massive boulder size and smaller sized blocks to Kausambi, where they were dressed and faced into proper slab like pieces for the construction of the wall. Much of this chipping seems to have occurred within the confines of the Fortress area itself and that area was thus treated separately when considering the lithic component of surface assemblages at Kausambi. It also does appear that

this structure was also the most obvious and most exploited target of dismantling activities and provided the largest source of ideal slab-like fragments in the construction of the later villages.

The second example of stone architecture from an early medieval or medieval period are two stil-standing, at least in part, structures which occur in the area between the fortifications and the Nauhai complex. One of these has been tentatively identified as a small stone built shrine as is better known in the case of the Candellas and the Kalacuris. The second bears a number of architectural fragments which are at present all re-used and re-assembled in the form of a small tomb but this may not have been their original purpose.

Bead Production at Kausambi

The bead assemblage of Kausambi is a major factor in its archaeology and has attracted sustained and full length study.[28] The distributions by and large conform to what is the received wisdom about the distribution and patterns of beads in the Ganga basin and demonstrate a massive proliferation in the NBPW and Early Historic periods. However, recent excavations have shown that sites like Senuwar and Agiabir were involved in the considerable and even mass production of a range of bead types even prior to the NBPW period and that these craft traditions have a significantly longer trajectory than had been originally thought. The excavations at Kausambi yielded a massive wealth of information regarding the manner in which these are distributed across time but had produced no evidence of whether any of these were produced at Kausambi. Erdosy noted that a certain area had yielded some amount of chert and chalcedony debitage which suggested that they might be linked to the production of beads.

The production of beads themselves has been a largely under-rated activity in the archaeology of the Early Historic and hitherto very limited information has been generated about the manner in which the raw materials are procured, how they are processed and how the beads themselves are fashioned. N.R. Bannerjee’s early excavations in the course of the 1950s at Ujjain are noteworthy and seem to have revealed a massive bead-making workshop where not only was there debitage and bead blanks in profuse numbers but additionally other stages of the process were in evidence as well. Bannerjee noted that the beads were placed in a pot and heat-treated in a special kiln and also that a special stone slab with grooves indicated that their grinding and preparation was a multiple staged process and one which required a considerable investment of time, energy and effort.

[28] M.C. Gupta, *A Study of the Beads from Kausambi*, (Swabha Prakashan, Allahabad, 1997)

An intended aim of the survey had been to inquire into and establish the range of crypto-crystalline silicas which were distributed at the site and this proved to be a task we found ourselves doing more often than we had anticipated. Cherts, Chalcedonies and agates in the forms of nodules which had been test-flaked and proper cores as well as fine flakes of debitage were all encountered in the course of the survey and were duly documented as part of a programme which ran parallel to that interested in the distribution of sandstones. The distribution that these stones presented seemed to be one which was conditioned by a very basic fact. These stones on account of their lustre, smoothness and distinctively and innately aesthetic appeal have found appreciation amongst later inhabitants as they had for those inhabitants of Kausambi which had brought them here in the first place. This is significant because the activities of children, especially those who spend their summer days in the fields grazing small livestock, seemed to have introduced a significant amount of noise into this dataset as attractive pieces of these stones were occasionally found in areas where these cattle and sheep-goat watchers bide their time. Nonetheless the combined distribution of these stones presented us with both a meaningful distribution as well as a congealed zone of activity as will be detailed below.

As noted earlier, the prominent stone workshop site of Nauhai yielded a few small pieces of quartz, chert and a carnelian. Whilst this is thin evidence on account of the highly disturbed nature of the site it appears to be as much as a surface examination can hope to achieve and is an important documentation of what we consider a stone workshop, especially if we view it through the lens of the epigraph found there. A stone-cutters guild may too be involved in other activities than just the production of major sculptural and architectural members. The distribution of these few finds seemed to provide a weak indicator towards something which the projects experience at other sites, which begin and are limited to the post Early Historic period, had also suggested. We know next to nothing about the dimensions of lithic utilization patterns of these later periods and it is a given that bead technologies not only continue but proliferate and diversify further. Further it is entirely possible that easily flaked stones such as cherts and chalcedony's continued to provide other uses and not every instance need be tied down to bead production in the historical era. Thus the distribution of such lithics at Kausambi in zones where the surface archaeology otherwise seems to indicate the predominant exposure of Early Historic or even later deposits may be one which is not an artefact of disturbed circumstances but may provide a real pattern of usage.

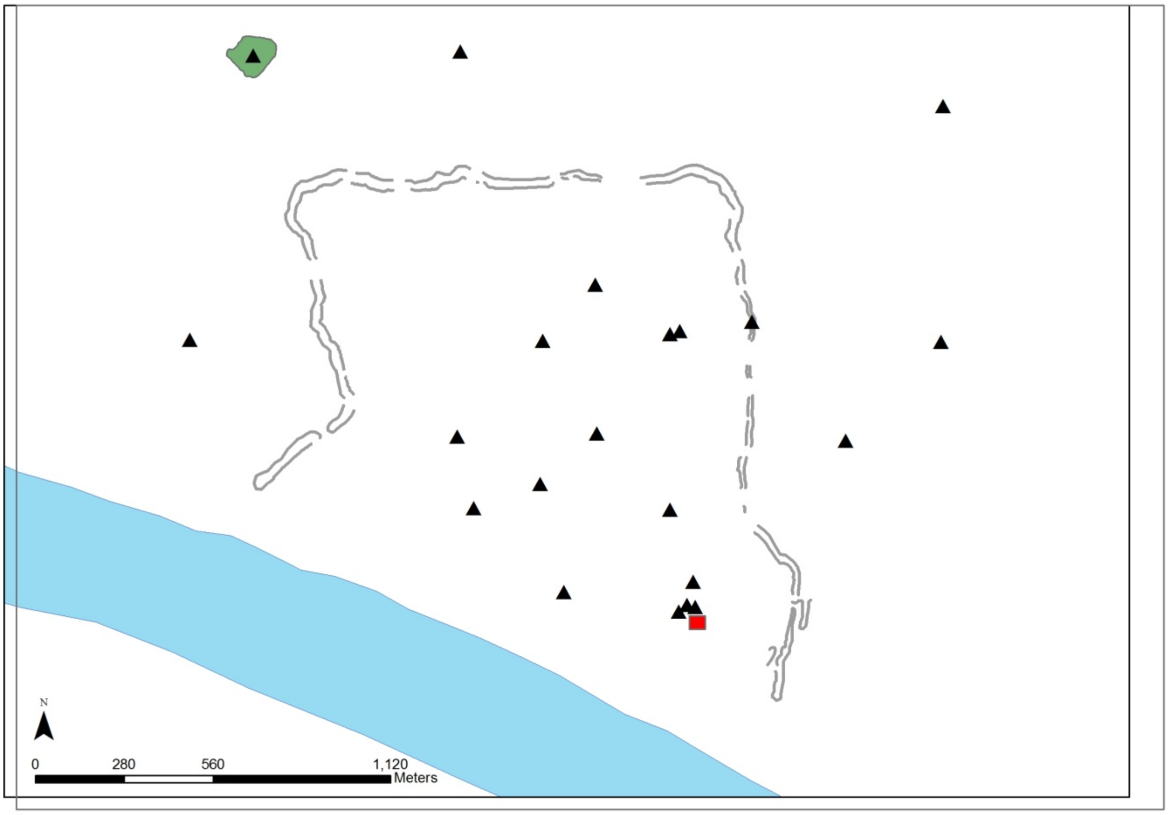


Figure 5-29 The distribution of Chert, Chalcedony and Agates at Kausambi

The distribution at Kausambi came to cluster most significantly around the zone in the south-east corner of the site. This area as covered by Core transect 30 was perhaps the area which presented the best and most diverse evidence of a NBPW and Early Historic deposit. Additionally this was one or two areas which yielded ceramics of the Kakoria-Koldihwa culture and thus provided evidence for perhaps having been one of the earliest settled areas of Kausambi. Here the artefactual assemblage of the Kausambi NBPW phase was diverse and we encountered not only a range of ceramics including very large quantities of NBPW and its 'early' blotchy manifestation but additionally, the survey also encountered a range of artefacts such as terracotta beads, pottery discs made out of the NBPW and a painted NBPW terracotta fragment all in a congealed zone in this transect. It is here that we also found in association with these artefacts the most pronounced evidence for industrial production. A truly massive hunk of slag which measured 40x25x20 centimetres was noticed and a

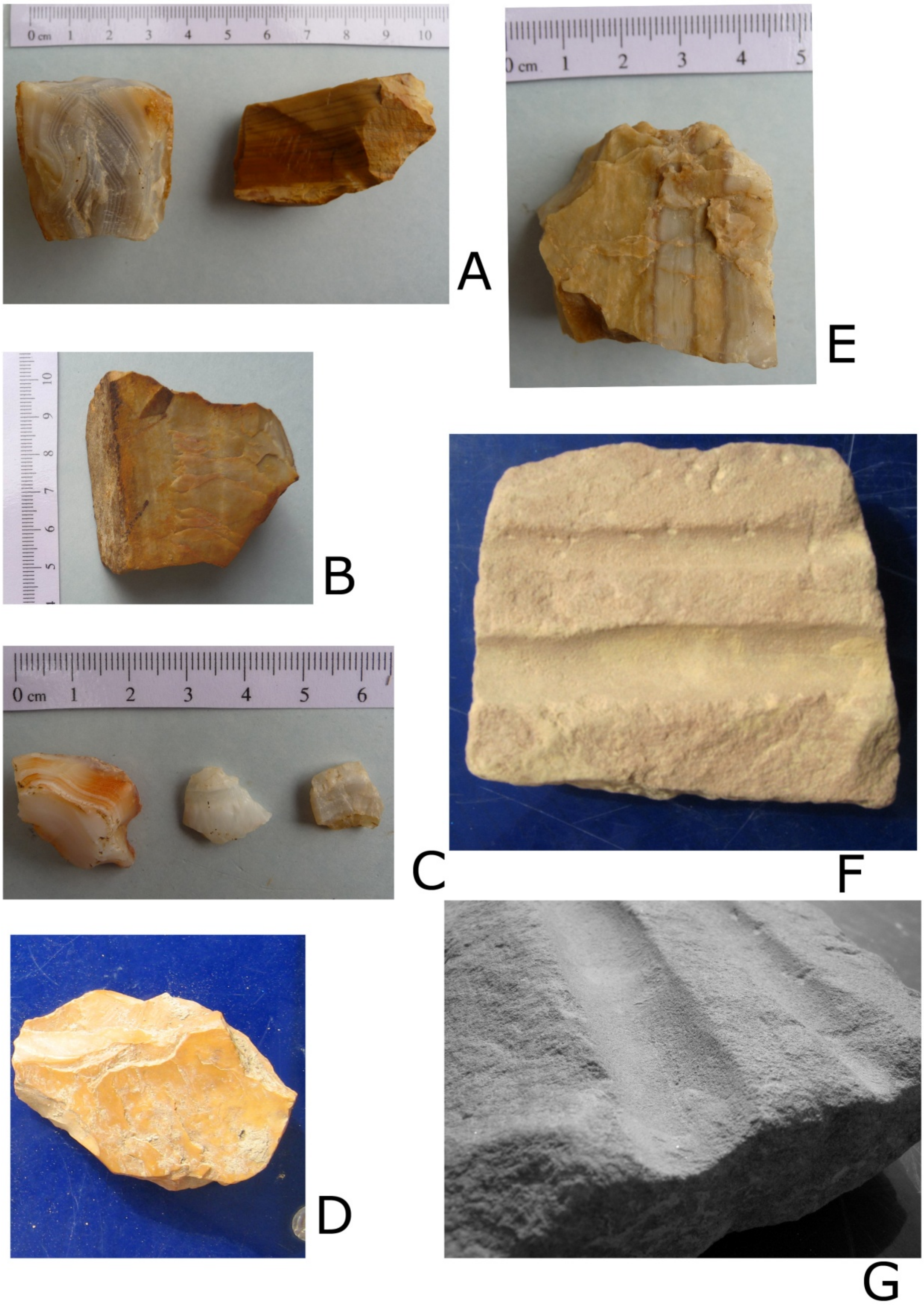


Figure 30 A through E are cores, nodules and fragments from the bead production process and F and G represent a fragment of the grooved stones used to grind and polish the beads.

complex of a number of Terracotta ringwells, known to have been provided to such production facilities was documented less than 10 metres away. Amongst the lithics we found a distinctive concentration of banded Agates and small carnelian flakes in addition to a range of cherts. It is noticeable that in this region which has pronounced topographic differences and despite an erosional feature which carves through it, we were able to find these lithic in the various forms and that too all seemingly in loose association. These forms included nodules which had been test flaked and then discarded for some reason, others which had clearly been utilized and in addition, we also found some small flakes of debitage. Most significantly, the survey located broken fragments of the tell-tale grooved stoned upon with bead roughouts are polished from the middle of this area as well and this is represented as a red square in Figure 5-29.

Green Glass bangles and their networks of distribution

The production of glass bangles in addition to evidence of bead-making is another craft tradition which has a long history in the Ganga basin and one which is pronounced with reference to the Kakoria-Koldihwa culture and its successor the Kotia group. In both of these cultural traditions there is extensive evidence of the use and consumption of glass bangles form the habitation sites and additionally we get a sense of the value they were accorded when we consider their frequently documented occurrence as grave goods. For some reason the colour green came to constitute a basic template for the glass industries and probably also of the consumption patterns of the Ganga basin and these came to be produced in a wide variety of ways.

The survey had encountered these fine, distinctive and decorated glass bangles at a number of sites in the larger Allahabad area and had noted that they seemed to indicate a greater visibility at sites near Kausambi such as those of Chak Ailai Niaz, Awana Alampur and Bidaon. Thus, the survey fully expected to find similar glass bangles at the site of Kausambi and this expectation was duly fulfilled as the survey encountered a greater range in variations and higher frequencies of these artefacts than known presently from any other site in the region.



Figure 5-31 Map showing the distribution of green glass bangles and glazed waste. The location in the south west corner outside the fortifications is the major production area.

An additional category of artefactual material which was found in large quantities was what had been initially described tentatively as glazed waste based on its appearance in the field. As coated by fine alluvial sediments these small lumps were distinguished by the irregular occurrence of smooth and thin surfaces which had a glaze like feel and were glassy in appearance. Upon washing of the selected specimens of these which had been collected it has become increasingly evident that these are clearly waste products from the manipulation of some form of a glass-based production process but they may not be related to the production of glazed wares as had been initially supposed. The gritty and completely oxidised and overfired nature of these brick lumps suggest that these may have been kiln insulators and other structural elements of hearths in the workshops where they may have been liable to receive and be stained by kiln drips and came to be constituted in such a manner. The complication was further raised by the fact that these lumps and the glass bangles both seemed to occur in contexts where they would seem to be in a distribution of broadly the late period, something which seemed to agree with both categories of evidence. It is important to state at the outset of this discussion as well that all of the bangles recovered from Kausambi during the survey seem to belong to a phase which is post-Kusana and may indeed be more easily designated as Medieval, the uncertainty being based again on the generalized nature of the chronology of the

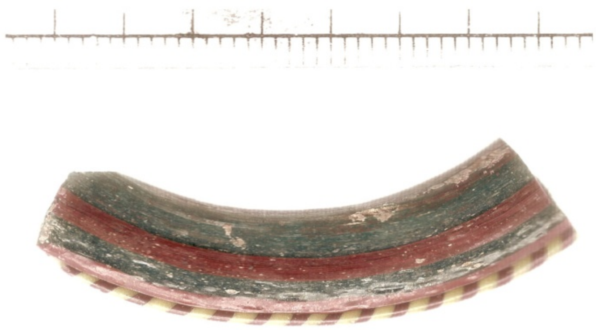


A selection of the green glass bangles found during the survey at Kausambi.

All specimens on the right were found amongst the dump of glazed wastes and kiln drips. Note the diversity of types which thus actually may be contemporaneous.

Detail of specimen below left is produced to demonstrate the complex forms which were produced especially the bands on the exterior

Below left, front on view of a smaller blue glass bangle which has prominent dots painted in yellow on the exterior.

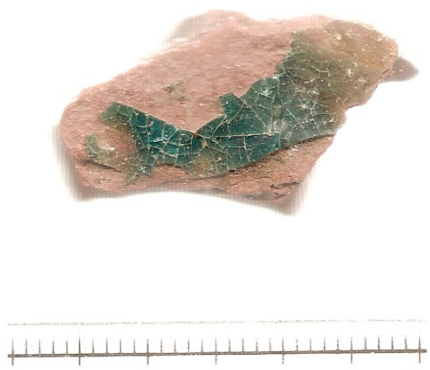






A range of the glazing / glass production waste encountered at Kausambi. All specimens are from the discrete waste dump encountered. I believe the specimen thickly coated by glass on the left is a fragment of a setter. Note that the fragments very in the oxidized and reduced states of the pottery core and that they also bear drips of red glass. The middle photo also has thick chunks of glass itself as represented by the two pieces in the row above the scale on the extreme left.







initial excavations. Further it is clear that no early bangle types were recovered on the nature of the bangles themselves, as the majority of the bangles fragments at Kausambi bear a conical or 'slice of a cake' like cross section, considerably different from the circular form which the early bangle tradition seems entirely confined to.

In the course of the survey of the area outside the ramparts and between them and the village of Kosam Inam, the survey encountered in the midst of what is now an agricultural field a massive density of these fragments. Here we found not only a large number of bangle fragments but also a marked diversity of types. In addition we found elements of the production process, most notably in the form of a large and thick jar-like vessel which had come to be entirely coated with a thick layer of glass on both its interior and exterior. Additionally, many brick fragments as well as thick sherds bore traces of the drip of glassy materials which had subsequently cooled in thick as well as thin layers in a manner that seemed uncontrolled and thus as waste products. Additional finds in this category were bits of glass which seemed to have cooled differently or had produced an unusual colour and thus had been discarded. Another perforated and broken fragment clearly suggested that the technique of winding the probably reheated glass was a part of these processes of production.

The glass bangles themselves demonstrate a number of distinctive types and all seem to have been produced by variations upon a basic dark green glass, frothy waste fragments of which were also found in the course of the survey. While much of the following is tentative and is based solely on a larger understanding of glass working, it does appear that none of the evidence here suggests that glass itself was being produced. Glass canes of the dark green basic glass were perhaps melted and recombined with blue glass and additionally perhaps with the frit of yellow and red glasses to produce what are quiet complex and refined examples of glass working. One of the most distinctive types in the Kausambi assemblage is a flat glass bangle which appears to have been combined with small and yet controlled elements of a yellow and red intertwined cane which was welded to its outer rim to produce a fine band at the very rim and broad sweeps of colour halfway into the body of the bangle itself. Further, sometime by apparent combination with a cane of deep red glass, a red or even blue band was introduced into the middle of the basic body of the bangle in green glass. Here these examples continue to have the fine intertwined yellow and red band at the rim of the bangle but do not witness the broad loops of colour into the body suggesting that they were different decorative techniques, perhaps involving the use of frit. Additionally, examples seem to have been recovered where the base green glass of lighter shade and involved the use of a darker green glass alongside the red and the yellow in the creation of a band of interspersed colours along the outer rim. Another more infrequent but equally distinctive type was a bangle of circular cross section made from blue glass with a red band at the rim which was often painted with a series of

dots in yellow pigment. As many of the older publications were constrained by the limitations of black and white plates, the effort here has been to provide a full description of these bangle types and provide good illustrations of the same to enable further reporting which is consistent and regular.

The field in which the mass of production evidence was found was thoroughly searched for any structural evidence or for that matter for any further evidence in terms of the broken fragments of crucibles or for the wasted fragments of glass canes if they indeed had been used in the production of these bangles. While none was found, the possibility must be admitted here that the deposit which the survey encountered was only the remains of massive dump of production refuse rather than that of any discrete but ruined workshop. Nonetheless, in either case the survey was thus able to document that there existed in Kausambi a major production centre of glass bangles at some point in what would appear to be the early medieval period and probably later.

The production and reproduction of medieval society: *Talabs* and *Kolhu stones*

Another major category of evidence from the Kausambi survey relates to a definitively later period and speaks of a major transition in the landscape. It is easily established that much of the area outside the ramparts had come to be returned to a state under the plough at an earlier date and in a more widespread manner than in the case of the land inside the ramparts of Kausambi. Further, colonial records, local names and their surviving remnants are also markers of how large plantations of Mango and Mahua trees were a significant part of the landscape and constituted important resources for the village communities in the past as they continue to do today. It appears that somewhere during the course of the second half of the second millennium CE these groves must have been larger than at present and Cunningham's sketch seems to suggest this as well. There are distinctive archaeological markers of these and other forms of land use and this section shall provide a short review of the same.

There are two main features of medieval subsistence and production strategies which occupy a distinctive and easily visible place in the landscape. The first is the still common practice of providing villages with their own talabs to enable life to go on during the hottest months of the year. As argued above, this is a practice that apparently does not go further back than the early medieval. While at present it may be difficult to ascertain the antiquity of talabs on any easy to observe set of traits, associations between their distribution and that of medieval mounds seems to be strong. These talabs also provide congenial locations for pollen sedimentation and despite their high propensity towards drying off in the summer months may provide excellent palaeoclimatic proxies.

The other distinctive feature which provides an excellent entry point into the village production, processing and consumption of agricultural and arboreal produce are the distinctive Kolhu-stones or oil presses. Massive and distinctive, they represent a major social institution of the past. As elaborately constructed and deliberately transported at considerable cost, these stones are symbols of a complex past system by which village societies provided themselves with facilities to process and locally produce processed foodstuffs such as oils, fruit juices etc.

At present our understanding of Kolhu stones is not impressive: their chronology is tentatively understood as being from the 14th and 15th centuries onward. While there are subtle changes in their morphology there has been no effort to seriate these and suggest a chronology. We do not know where they were produced or at how many centres, nor do we have any good idea of their distribution. A major production centre had been located in the Chunar region during the extensive surveys there and the U.P. State Archaeology Department has been one of the few agencies which have consistently reported them as a major archaeological presence in the landscape.[29] Even from this impressionistic evidence there are a few significant trends. Some of the mounded medieval sites encountered in the Kausambi area are also invariably associated with at least one kolhu stone, while the present observer notes that at times a single extant and probably much attenuated *mahua* bagh may be seen to have been provided with up to 4 or 5 such stones. A reliable database along with chronology shall help in building towards an understanding of the significance of Kolhu stones in medieval societies. Additionally it must be mentioned that across Uttar Pradesh and Madhya Pradesh a small but consistent percentage of Kolhu stones are known to bear inscriptions but till date there has been no effort to document these or put them together. From documentary evidence of the more recent past it is equally clear that the colonial state's efforts to extend and intensify production in the Ganga basin saw a focussed attempt to improve the productivity of the Kolhu system as well. It appears that the Kolhu's were a major element in the effort to extract sugar from sugar canes in fields and much exists by way of the documentary sources which discuss manners in which the system can be improved in terms of the efficiency of the labour it utilizes and the processed product which it yields.[30]

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[29] Vidula Jayaswal,*From Stone Quarry to Sculpturing Workshop: A Report on the Archaeological Investigations Around Chunar, Varanasi & Sarnath,(*Delhi, Agam Kala Prakashan, 1998),. At Bijar Kalan for example, a group of 10 Kolhu's has been described by Tewari et al; the earliest of the set of which are inscribed bears an inscription which is dated to 1810 AD Tewari et al, 'Exploration in the Robertsganj-Sonabhadra region', *Pragdhara* 9. For a more complete description of an inscribed Kolhu stonetext of the 16th century CE see Arvind Kumar Singh, 'Inscriptions form Padhavali and Batesara, District Morena, M.P.' *Pragdhara* 16, 2005-2006, p.255

[30] Ian Stone *Canal Irrigation in British India: Perspectives on Technological Change in a Peasant Economy* (Cambridge, Cambridge University Press, 2002) provides a discussion of how by the 1880s at least for purposes of Sugar mill usage the active use of Kolhu stones had almost come to an end and had increasingly been replaced by other types of sugar mills. In the Kausambi area, sugar cane is grown, but is mostly confined to the belt adjacent to the Sasur Khaderi and the Kilnhai rivers, or in areas closest to the canals. Further, the occurrence of at least a single Kolhu in each of the villages combined

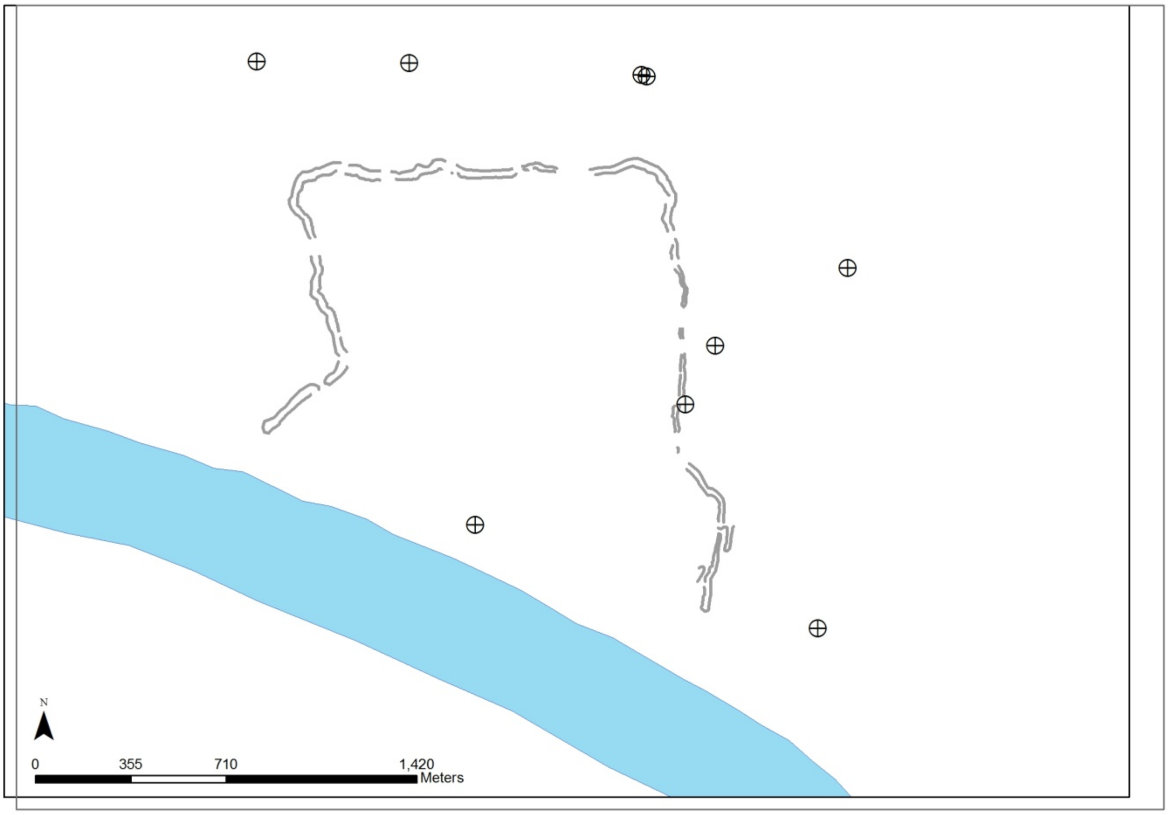


Figure 5-32 Map demonstrating the distribution of Kolhu stones in the Kausambi area.

At present these Kolhu stones function as one of the best markers of agricultural landscapes of the past when we find them in the context of both open fields and what seems to have been an orchard or a grove. Additionally, their presence in the midst of what appears to have been major medieval settlements at Kausambi allows one to tentatively assign a later period to these areas as well. The discovery of the unfinished Kolhu at the stone workshop sites at Nauhai also introduces the element that at least some of these stones if not many of them were produced locally.

While this section has not been able to tie down the Kolhu stones of the Kausambi area to any significant and specific production activity, their wide presence over the landscape in contexts of villages, open fields and orchards has been documented. The Kolhu stones are undoubtedly a useful archaeological marker of a distinctive constitution of agrarian landscapes at a particular moment in the long-term history of the Ganga Basin. The Kausambi region no doubt witnessed major production and processing of produce while they were active but was also involved, as has been documented above, in the production of these massive mill-stones themselves.

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with what is a remembered oral testimony of its usage by the inhabitants suggests a much wider and more complex use as a mill in general.



Figure 5-33 Unfinished Kolhu stone at Nauhai Workshop site. Below a Kolhu set in the field outside the ramparts which are visible in the distance



VI. The succession and dynamics of settlement at the site of Kausambi

One of the chosen aims and intentions of this survey was the desire to produce an understanding of how the site at Kausambi emerged and how it changed into the massive and dominating metropolis that it became during the Early Historic. Equally, the project of engaging with the surface archaeology was directed towards the generation of some data which would guide the manner in which we could understand the occupation of Kausambi in the second half of the first millennium CE and even later. Erdosy's previous work at Kausambi had in fact documented much of this and had provided suggestions which have been met with some contestation and debate. One of the major merits of Erdosy's survey was the documentation of a major set of sites in the area outside the rampart and the results of these have been discussed in Chapter 4. The present survey has been able to generate meaningful data which can lead to a meaningful reengagement with the thematic. While for the area within the ramparts the survey coverage was able to relate to wider trends in these compact and defined areas at a level where it is believed that generalizations will be accurate and meaningful, the case for the area outside the ramparts requires a further word of clarification.

The logistical need to step down the survey's coverage from 50 % to 25 % admittedly impacted the nature of the survey's data for being able to generalize and hypothesize about the nature of the settled areas in the region outside the rampart, where settlements were not only probably more discrete but also were considerably more disturbed. This was most pronounced in the area outside the Eastern gateways where there is massive evidence of settlement; something which this survey has concluded would need and probably merits a far more detailed survey of its own. It is notable that this is the area which Cunningham described as extending as a low continuous area of ruins for an area of about half a mile. Erdosy too provided us with a single location, which is not apparently at the centre of this irregular distribution, but estimated the general area of the site to have been almost 32 hectares. In this area, the present survey encountered a chain of mounds which extended from the river to a location even further north than the northernmost extension of the ramparts. The survey additionally was able to document major distinctions and variations in the surface assemblages of these areas and seemingly distinct occupations. However, the tasks of delineating their dimensions outside of the survey areas was something which simply could not be attempted for want of time and resources. Further, it became apparent that this eastern sector presented a set of occupations which ranged from the NBPW through to the medieval and would probably have required a survey of a different plan and intensity than the present to do justice to its complexity

and increasingly disturbed and attenuated circumstances. Nonetheless, field observations were made in a detailed manner and the following is based upon a consideration of the same.

The Northern and western sectors of the site were entirely different affairs and ancient occupations here seem to have been more discrete and less overlapping and continuous in their extent. It was here that the present survey was able to add to the existing documentation at Kausambi. In these areas, the survey was able to document new sites which were low and had been disturbed and perhaps were missed by traditional jeep surveys for these very reasons.

Mesolithic beginnings

In tracing the early history of settlement in the Kausambi area it is important to recall the stress that was laid in Chapter 3 on the fact that the 'Mesolithic' to 'Chalcolithic' transition in the Ganga basin is a shadowy and fluid one. It is in this context that we can locate the earliest settlement in the Kausambi region, as a 'Mesolithic' site has been reported by Prof. M.C. Gupta from the area of Birauncha, approximately 3.75 kilometres downstream from Kausambi.[31] Additionally, the survey too recovered a distinctive artefact in what would appear to be a disturbed context from within the survey area. It is fashioned on a dark black cryptocrystalline silica stone and can be classified as retouched blade-like flake. The discovery of the site at Birauncha is also a great marker of the general stability of the course of the Yamuna in this region and marks the earliest known site in the area. There is a known acheulian exposure at the lowest levels of the section which the Yamuna has exposed at Mau, another 4 kilometres downstream from Birauncha and is significant too as has been discussed previously, but can be understood as having occurred in a time when the configuration of the landscape was entirely different from what it is today.

[31] I am deeply indebted to Prof. M.C Gupta for sharing the information of the discovery of this site with me and for a discussion upon its significance.

Figure 5-34 A map of the Kausambi region displaying known Mesolithic and LSA settlements in the area. The site of Birauncha is downstream from Kausambi and the single early lithic encountered by the survey is marked within survey limits with a black triangle.

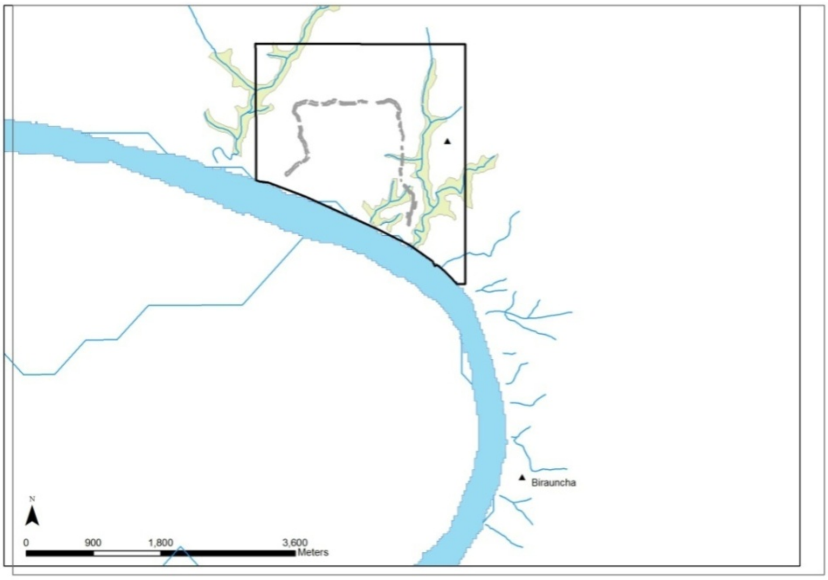




Figure 35 The typical blade-flake known from Mesolithic sites recovered during the survey.

The Kakoria- Koldihwa complex at Kausambi

The earliest occupation at the site of Kausambi itself relates clearly and directly with the 'Vindhyan Chalcolithic' or the Kakoria-Koldihwa complex and has been documented by more persons than is usually noticed. Uncannily, for someone who rarely took interest in or wrote his observations about pottery in his work, Cunningham appears to have noticed some form of a Cord-Impressed ware at Kausambi. The excavations of the Allahabad University have documented this at many sectors of the site which include the areas of the Ghoshita-arama, where a large pit belonging to the earliest layers, cut directly underneath the location later occupied by the main Stupa, was known to unearth the thick Red Ware of the Kakoria- Koldihwa complex. A few sherds curated in the Prof. G.R. Sharma Memorial Museum from this locus also bear cord-impressed marks as well as including amongst them a selection of the 'dish-on-stands' which appear to be part of the complex. Further evidence for this period of occupation came from the area of the Eastern Defences excavations and is also known from the lowest and disturbed levels of the Palace Complex. By and large, this trend of distribution was confirmed by the surveys of Erdosy, who outlined a similar area, though as noted earlier in chapter 4, the grounds on which his diagnostics have been chosen remain unclear but seem to have related to the ceramics of the Kakoria- Koldihwa complex.

The present survey documented that these occupation layers, in conformity with the records of the excavations, are thoroughly and massively encapsulated. They occur at a depth of 14 to 15 feet below the present surface in the excavated areas and finds of truly diagnostic sherds were rare but unmistakable. One sherd particularly presented not only the typical ochrous-red slip but also a mitigated form of Cord-impression alongside the thin black paintings which are known from the Kakoria-Koldihwa complex and similar sherds are on display at the Prof. G.R. Sharma Memorial Museum. Further, a truly distinctive shape, one which had been compared favourably with a tradition of ceramics more commonly known from the repertoire of Megalithic sites, was also found from the Palace area. Additionally, at the Museum, early ceramics, notably a single but distinctive sherd of a painted Black and Red ware and a similar collection of early red wares are curated from two sites, namely Sonakhari and Tikuri (Figure 5-36). These too were visited in the course of the survey and in the case of Sonakhari it was clear that the context of that early find was met with by a range of early ceramics, including Black Slipped wares and the early fine red ware which is known to have continued into the early NBPW phase. At Tikuri however the site is known to have been devastated by massive erosion from the Yamuna and the distribution of ceramics we were able to find seemed confined to a later, post-Gupta and Early medieval phase.

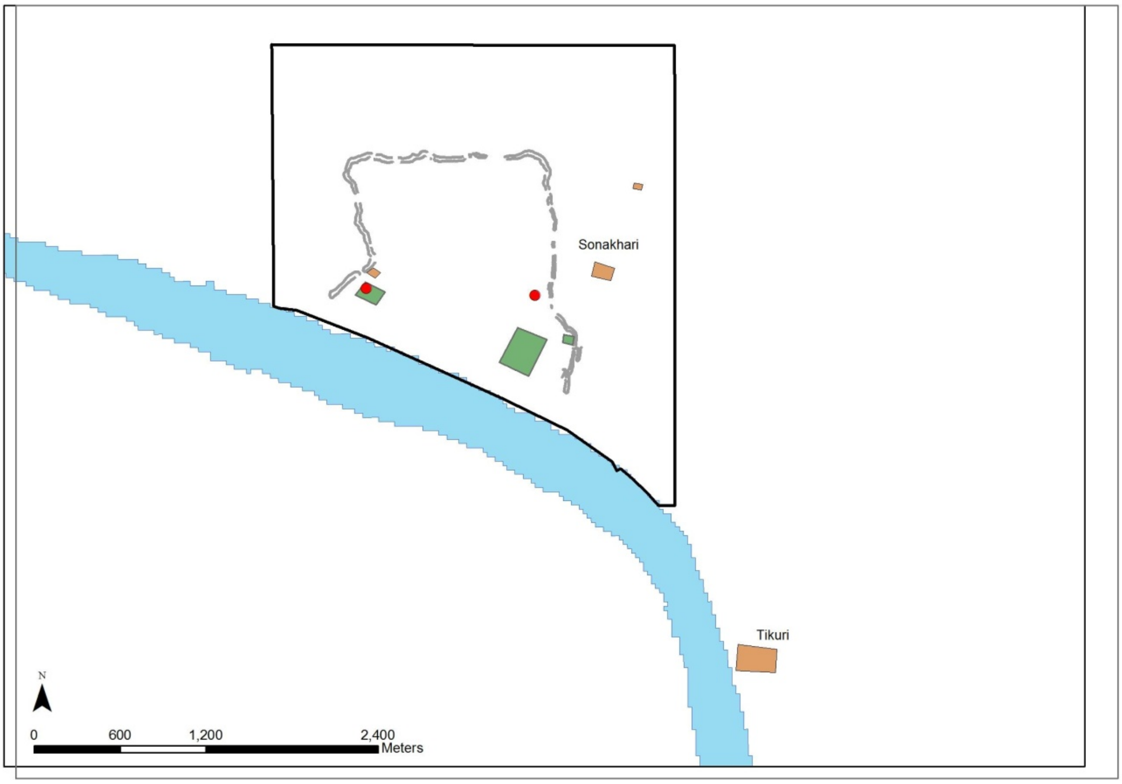


Figure 5-36 Early occupation at Kausambi relating to the Kakoria-Koldihwa complex.



Figure 5-37 Enlarged view of the central area of the same distribution. The green areas demarcate zones from which the Kakoria- Koldihwa complex has been excavated. Further, the brown zones are areas where the current survey has been able to document the presence of other wares which are known to precede the NBPW.



Figure 38 Distinctive early Gray ware bearing slip drip designs on the interioir

The present survey has been able to add to the discussion on the question of what is the early succession of cultures at Kausambi by detailing another two locations where significant distributions of other early and pre-NBPW period ceramics have been found. A major question in this of course remains the late or 'degenerate' or 'fugitive' Painted Gray Ware tradition that has been ascribed to the site and has posed a general problem in culture-historical schemes. The position taken here is that of the most distinctive forms of the typical Painted Gray Ware, only one, in a slightly less carefully constructed form, has been documented from the site. This is the typical dish type and the other form absent here and generally unknown in these parts is the thin walled tall bowl form. Without a large scale survey and comparison of all known Gray ware types and occurrences which have been at various points reported as Painted Gray ware, it is impossible to draw this debate to any significant conclusion and the question remains open. As discussed previously in Chapter 3, the new evidence from Sankissa speaks eloquently of the complexity that attends the situation. Nonetheless, a series of observations may make the context of decorated fine gray wares in an early context: the class of wares which are usually labelled as Chalcolithic include a Black slipped Ware fired under reducing conditions which save for the slip, and when in eroded contexts, often resembles the fine gray wares of the same period, and taken as definitive of the western cultural complexes. This ware was also clearly the basic ware upon which some burnished and polished techniques were being developed and implemented as had been noted in Sringaverapura and were known to consist of bowl-type sherds which bear a fine polished black slip on the exterior surface. Very similar sherds are known from the Prof. G.R. Sharma Memorial Museum and were encountered during the course of the survey as well. Additionally, the survey encountered other sherds which appeared to be of a basin or tall wide-mouthed Jar type which bore a similar casual black slipped rim and drip-painted design which would have perhaps qualified as a coarse 'painted gray ware' had the

sherd been any more fragmentary. (This locality is marked in the form of a brown rectangle in the North-East corner of Figure 5-37) In the absence of truly distinctive types, the position taken here is that quite often these sherds are indeed of an early time-bracket but they may be more at home than we imagine in, and be part of, the Kakoria- Koldihwa complex.

Evidence seemingly contrary to this came from the find of a fine and burnished Black and Red ware dish type, a type which is known quite often to exist alongside the archetypal PGW and also has a somewhat ill-established place in the 'Chalcolithic' Black and Red Wares of the eastern complex. This dish type is distinctive and, importantly, is not generally known from the Kakoria- Koldihwa complex and its sequence of Black and Red wares and was also not known from similar and neighbouring levels at the recent excavations at Jhusi.[32] The sherd in question was found at a location North of the stone Fortress and is marked as the area shaded in brown in the south-east corner of Figure 5-37.

The general picture which then can be made about Kausambi during this period is constrained by the fact that the village of Garhwa sits on top of a large area of the riverfront deposit and it would appear that the known archaeological occurrences of the Kakoria- Koldihwa complex flank either side of this village. The total area estimated by Erdosy to relate to his Period I was circa 10 hectares and this survey serves to confirm this and adds that given the known range of site sizes for the Kakoria- Koldihwa complex, this would appear to be one of the largest. It seems likely that the site may have continued under the present village of Garhwa and this would only serve to further increase the nature of this early occupation. However, the argument to link these two areas is weak and is not based on any evidential parameters. Further to the east of the fortification, from an area which has unfortunately been converted into a rice-wheat system and one for which Erdosy's survey leaves no records, we seemed to have found another site which used early Black Slipped and other plain gray wares. In the latter, a globular pot form was found which seemed to compare well with known forms and this was the location where the slip-painted sherd, which has been described above, was found as well. The importance of this early site which, while destroyed today, seems to have been modest in size and circa a hectare but not much larger, is that it is inland, and seems to be a marker of a different sort of site for this complex. Further, it too is in close relation to the two known sites of the Kakoria- Koldihwa complex at Kasuambi and suggests that if sites could be spaced this far apart, then perhaps they could have been spaced at a similar distance along the river too, and the two known distributions may indeed have been independent sites.

[32] I am deeply indebted to Prof. J.N. Pal for sharing this observation about his excavations at Jhusi with me and in addition for seeing the piece in question and commenting upon its significance.

The emergent NBPW phase

As argued in Chapter 3, the next phase in the cultural sequence at Kausambi seems to have been one which witnesses the emergence of the technologies which are involved in the production of the NBPW and is best represented by the blotchy NBPW which, as this section will argue, has a limited and distinctive distribution across the site of Kausambi. The curated materials at the Prof. G.R. Sharma Memorial Museum, and the observations from an assessment point which was laid in the middle of a massive exposure of such a horizon, have pointed at the fact that there are significant linkages with the previous period and this period should be seen as emergent from that background. The strongest of these comes in the form of the 'rippled / channelled thick ware' which was found in large quantities at the site in association with major concentrations of the NBPW, and a similar distribution is known from the excavated materials as well.

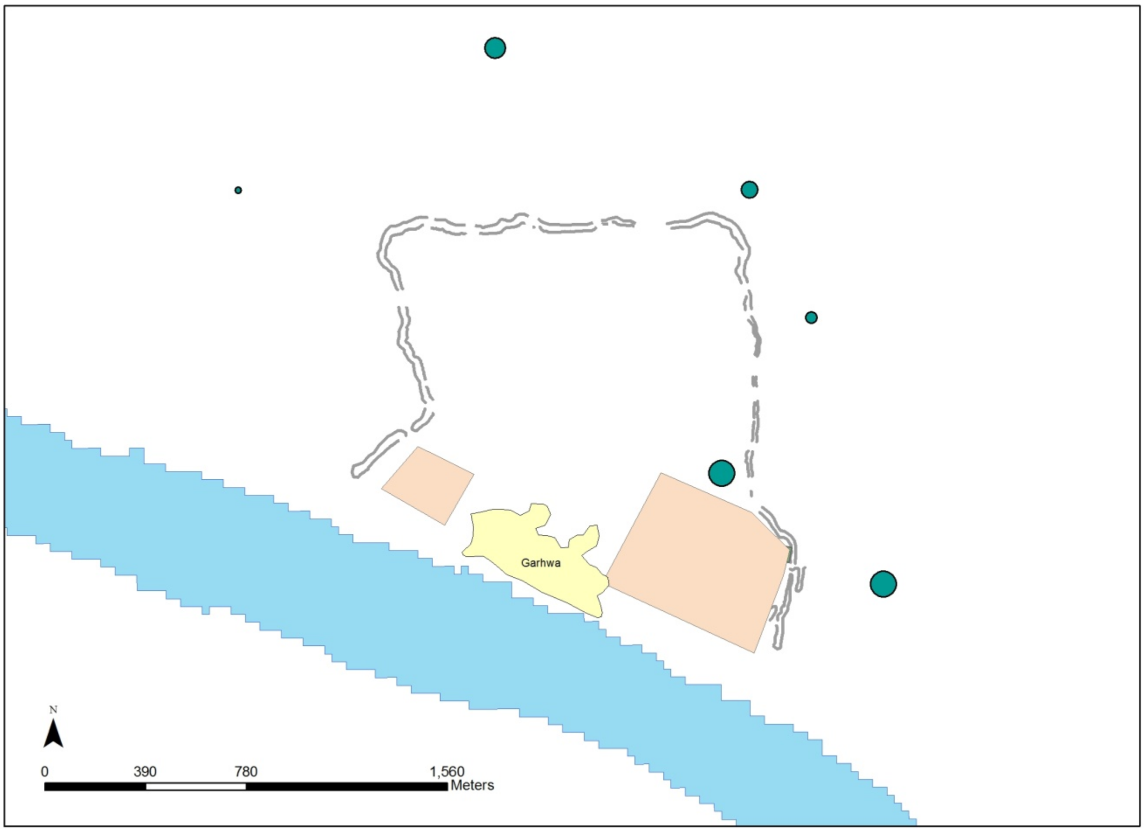


Figure 5-39 Areas which appear to have been occupied during the Early NBPW phase. The areas shaded in red are zones where the current survey was able to delimit the distributions of the early blotchy NBPW. The green circle are those which are Erdosy's markers of the early NBPW, implying that his survey located some form of a Black and Red ware at these locations, something which this survey could not corroborate. The circles are scaled relative to each other in terms of their sizes as delineated by Erdosy.

As Figure 5-39 demonstrates the distribution of the early NBPW seems to correlate well with the previous phase and marks a small expansion, something which in this phase may be masked to a much higher degree by the modern village of Garhwa. This visualization is admittedly based upon a typology which is hinged upon the matter of the blotchy NBPW, a suggestion of whose being distinctively early needs further verification, but is taken as the basis for the division here as it is a clear index, especially in the field and makes parsimonious sense in terms of its connections and relative distributions with both the preceding and succeeding phases.

The Mature NBPW phase at Kausambi

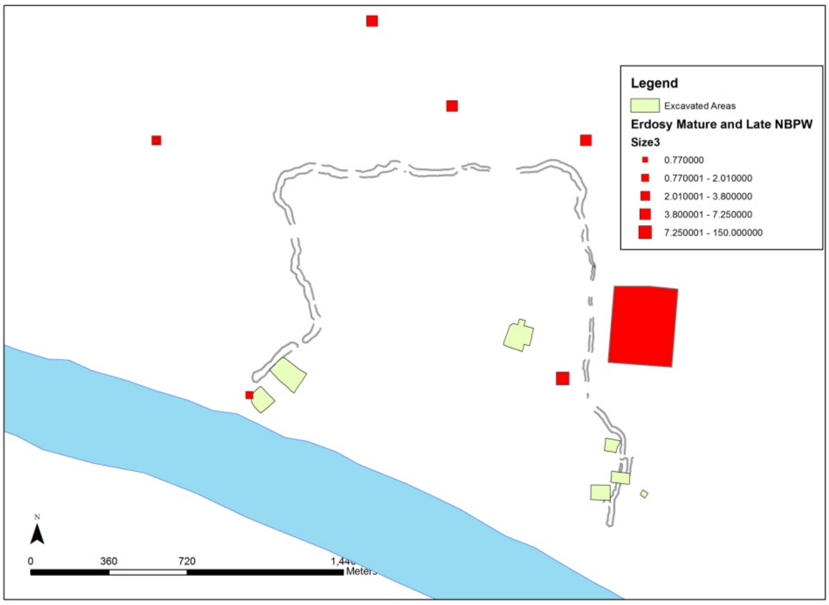
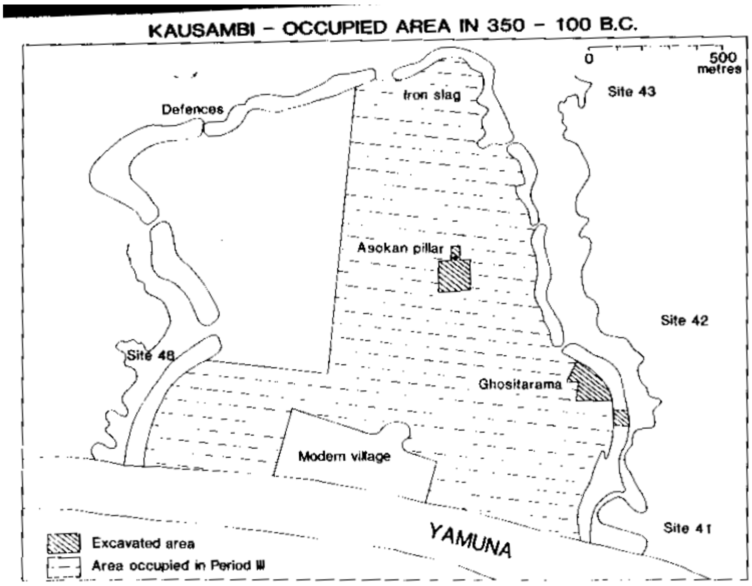


Figure 5-40 Information on the mature NBPW phase from previous surveys and excavations

The profuseness of the NBPW at Kausambi is not only measured in its quantities alone but can also by represented by its massive distribution across the site. As

Figure 5-40 demonstrates, the areas from which the NBPW is found cover a whole range of the area of the site and was known from every trench which was dug. Erdosy's survey information is often hard to regenerate and thus his own map for the area he thought to have been settled is worthy of being reproduced.

Figure 5-41 Erdosy's map of Period III under his schema: the mature NBPW phase, demonstrating his notion of the settled area.



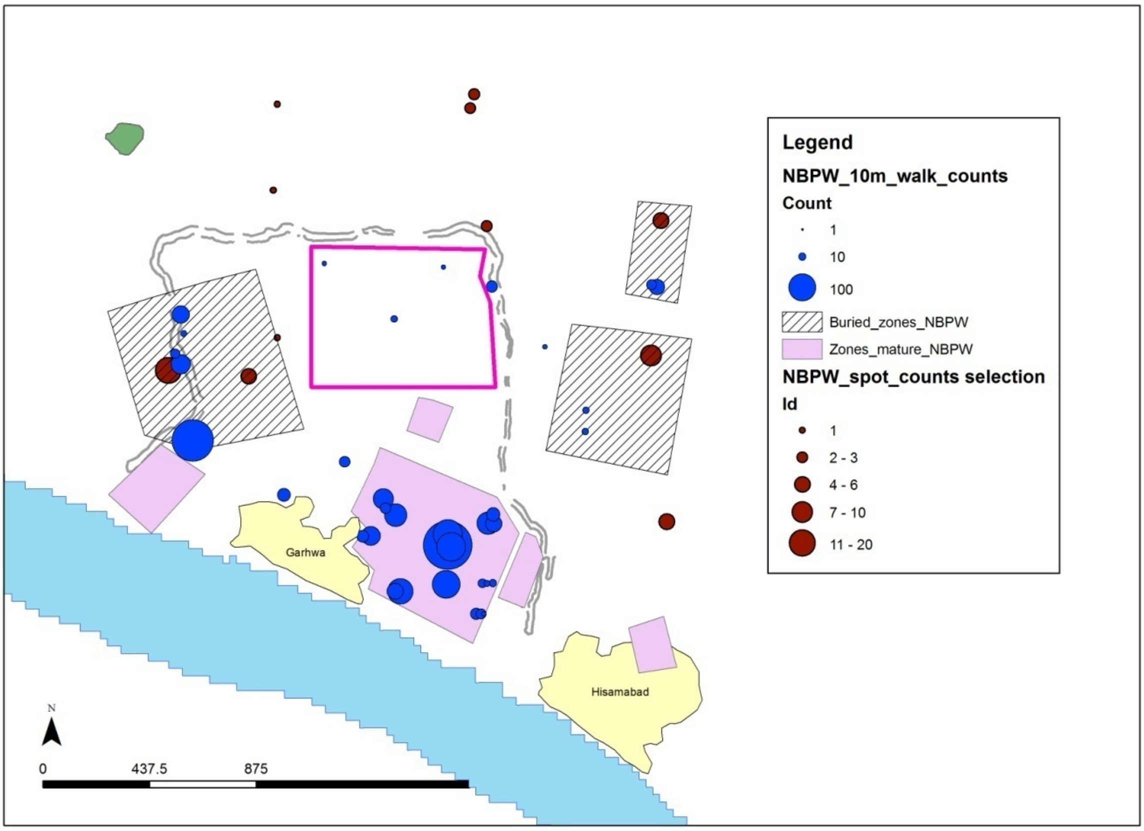


Figure 5-42 Information on the mature NBPW phase as generated by the current survey.

As Figure 5-42 demonstrates the distribution of NBPW at the site which the present survey encountered has major differences with that as portrayed by Erdosy and can supplement the information provided by the excavations. Figure 5-42 represents the various forms in which the distributions of the NBPW on the surface were studied by the survey, discrete scatters were counted as spot-counts of 1 m2 and more dispersed ones by a measure of 10 m crawl survey counts. Further, on the combined basis of this the major distributions were studied and transects characterized as mature NBPW zones. In many cases the incised sections of the nallah were the most important guide and, as previously remarked, provided extensive NBPW deposits and their evidence, especially on the western half of the fortified area where we had not encountered much NBPW on the surface and assemblages had been dominated by much later materials. A similar situation was encountered to the east, outside the fortifications where exposures were occasional but intermittent and the evidence in sections or in the form of the associated red wares was more profuse. Figure 5-42 additionally also represents the area of the Nuahai stone workshop where another such area of a concentrated deposit of the associated wares had been found.

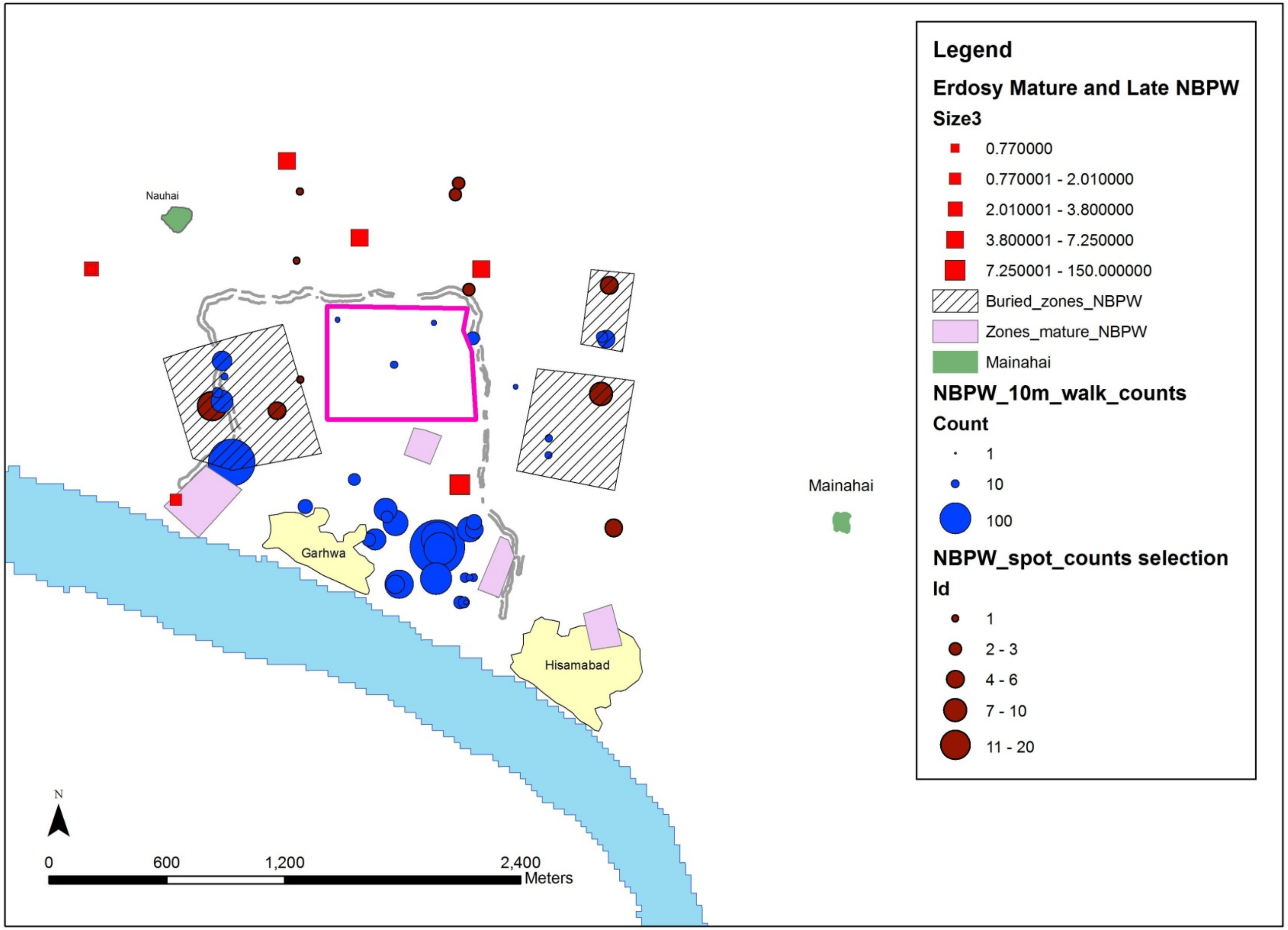


Figure5-43 A map which combines all information generated on the distribution of NBPW at the site of Kausambi. This map is on a scale so as to include the neighbouring site of Mainahai where small but definite distributions of NBPW were encountered.

Two trends seem to emerge clearly from the combined testimony of all these records: Erdosy's characterization of the Western sector of the site as based on surface assemblages alone was misguided, as would have the present survey's had it not been for the presence and the study of the sections of the major erosional features in this sector. The western sector seems to have had considerable occupation during the NBPW phase and this is represented in Figure 5-42 and Figure5-43 by the black simple hatched boxes representing a buried deposit and its probable dimensions. Secondly, it appears that landscape transformation and disturbances in the northern sector may have significantly changed the landscape between Erdosy's surveys and the present one. While small distributions of the NBPW were found in these Northern areas, especially those near the village of Amba Kuan, it was not easy to interpret these in terms of major inhabited and settled areas and ascribe any settled area to them. Thus, these have been mapped simply in terms of their lower density.

A vexing problem arises with regard to the Northern and North-Eastern corner of the site where there exists probably the largest deposit of the period after the NBPW and additionally there are no deeply incised erosional features which afford any insight into what the mound conceals beneath. Reacting to the rather odd predilection of Erdosy's schema for a large fortified area, of which significant parts were not settled according to his own schema, Chakrabarti had argued that if the fortifications date to the mid NBPW period, then the entire area enclosed by them must also have been settled in that period.[33] While this is indeed parsimonious, the present position is a somewhat different one. Based on whatever observation can be made today, the Northern sector of the ramparts are indeed a set apart, and need investigation via excavation for us to be able to address these questions. Hitherto the belief has been that fortifications as massive as those at Kausambi were major and planned efforts, executed seemingly in one go. However, this is something which, no matter how common-sensical, needs demonstration especially given the complex and multi-phased chronology of the ramparts.

The large pink-coloured quadrilateral in the North-Eastern corner of the ramparts is one which is marked by surface assemblages which provide the most complete record of the later settlement of Kausambi. Given the experience of this survey in the Western sector of the site, it is indeed plausible that NBPW levels are buried here and that they are concealed from view. The position this survey takes is that it is a likely possibility that perhaps the entire area of the fortified zone witnessed a major NBPW phase. This is suggested by the nature in which processes of encapsulation are demonstrably witnessed at the site. However, the discussion above has tried to report what the

[33] D.K. Chakrabarti, *India: An Archaeological History* (OUP, Delhi, 1999)

survey did encounter as accurately as possible and has left this possibility as an open one and one which needs further demonstration.

The Early Historic phase at Kausambi

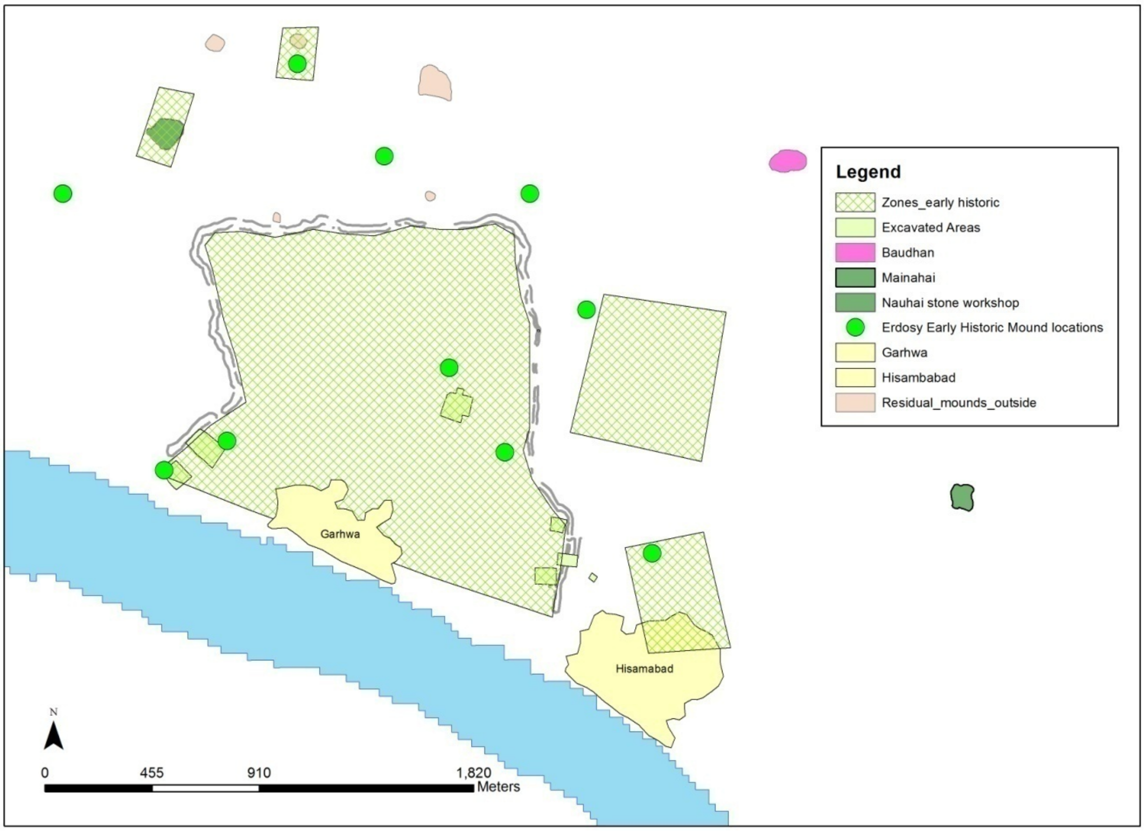


Figure 5-44 Map displaying the known extent of Early Historic settlement at Kausambi

The early historic phase at Kausambi which is taken here to include the 'Kusana phase' is one which is marked by a considerable rise in the distribution of settlements outside of the fortified area, most markedly perhaps to the East and to the North. It must be noted here that in the North-Eastern sector of the fortified zone, the inhabitation of these period seemed to be encapsulated by still further deposits and was witnessed only occasionally but regularly enough. This phase is marked by massive structural activities and another major index by which the distribution of this phase was mapped was by the careful and consistent recording of exposed brick architecture in bricks which are conventionally dated to this period.

It is notable that the settlement in the area which is under Hisamabad today seems to have grown considerably, and is unfortunately today in the process of being destroyed at a rapid pace in the course of the expansion of the village and its need for sediment for construction purposes. It is in

this area where Cunningham had tentatively located a major stupa complex and the height at which the most part of the village is located is suggestive of a considerable settlement site below. The area marked refers to only the zone in which ceramics of this phase could be conclusively identified.

Kausambi in the period from 500 to 1000 CE

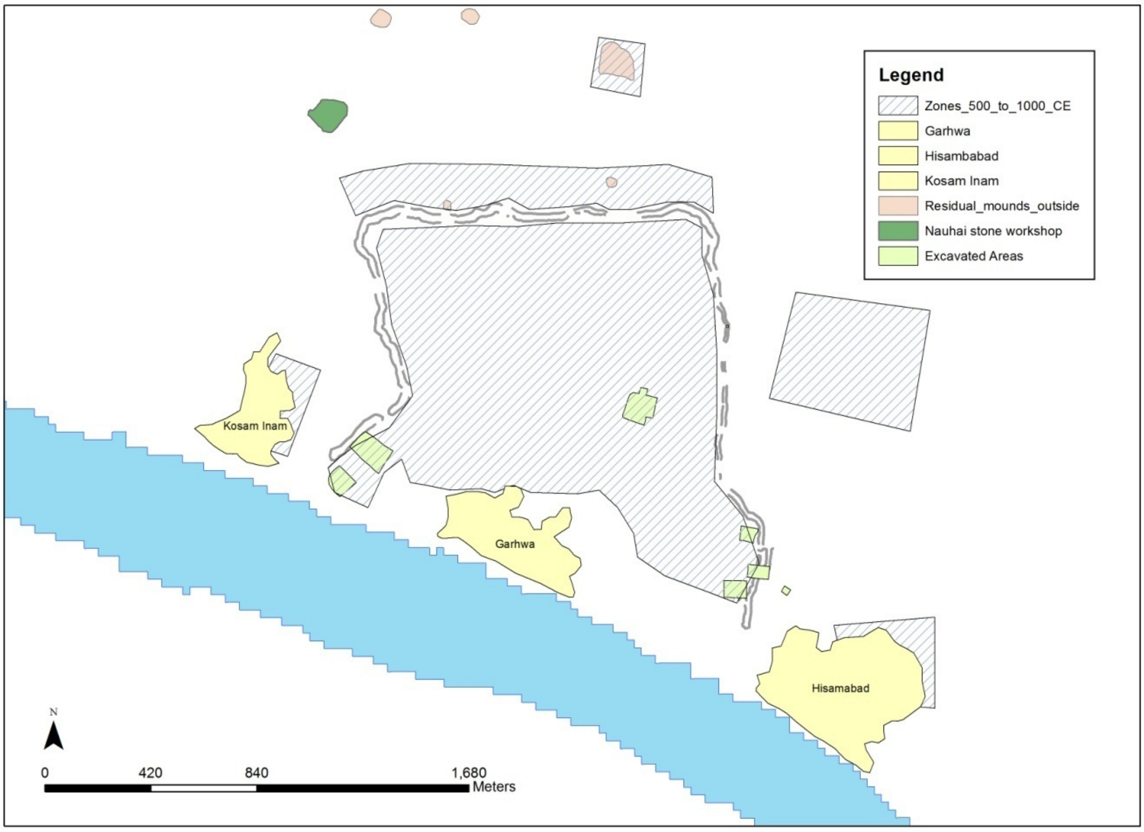


Figure 5-45 Map displaying major settled areas of the Kausambi region in the period from 500 to 1000 CE

Two trends are most noticeable about the extensive settlement in this period which is judged largely on the basis of ceramic types which are not clearly defined in terms of period but are known to exist later than those considered typically Kusana and earlier than those which this survey has suggested to be contemporary and associated with the later glazed wares. There is marked increase of settlements in the area immediately to the North of and at the foot of the northern sector of the Ramparts. Equally noticeable was the trend which the survey encountered in the zone nearest the river and in between the Villages of Garhwa and Hisamabad. While there was extensive evidence of the early period here, we found little or no evidence at all, in any artefactual category, of a later period. This seems to suggest that this area, while clearly still important and useful especially in terms of the access it provides to the river, was no longer actively settled although it may have been used for other purposes.

Additionally, materials from this broad period seemed to occur at the village of Kosam Inam and at a small residual mound to the North of the ramparts, something which is significant as no earlier materials were found from these areas and may represent an extension of the settlement into new zones. It is hoped that this demonstration shall answer strongly and empirically the assertions about Urban decay which have been made about the site.[34]

Medieval Kausambi

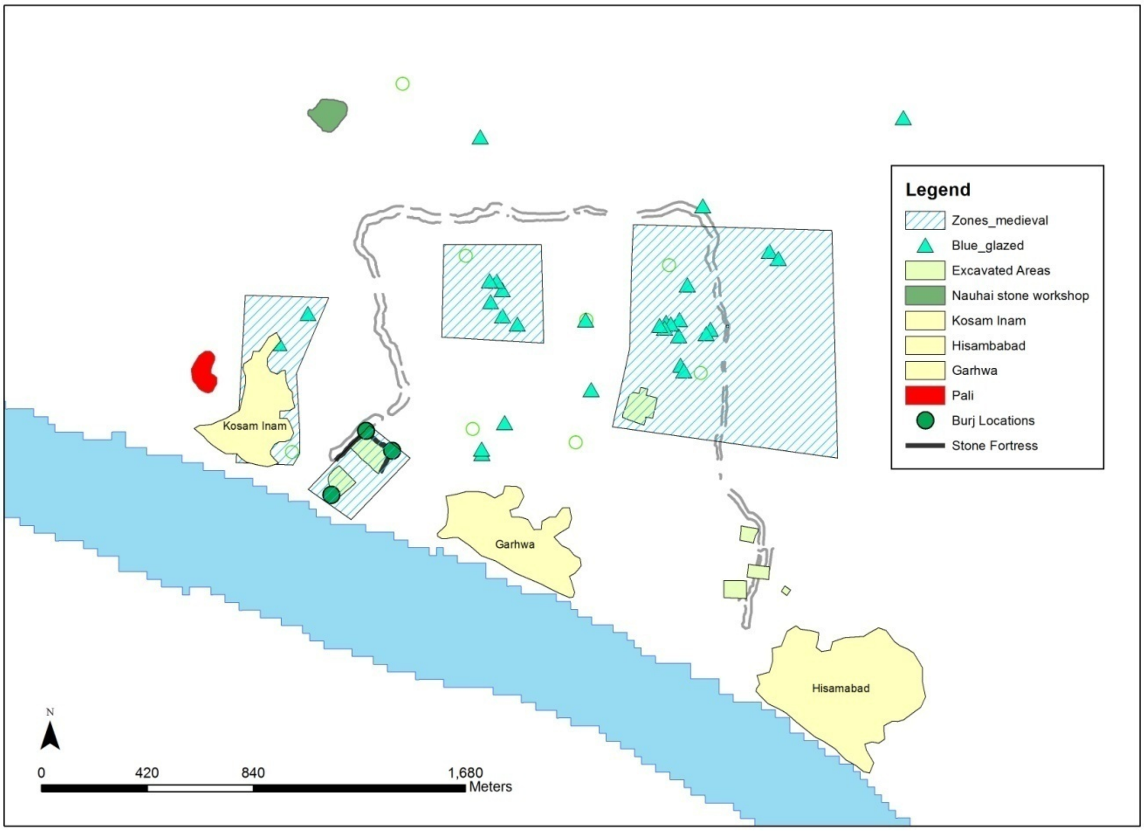


Figure 5-46 Map displaying the major artefactual as well as structural remains form the medieval period at Kausambi.

Figure 5-46 has been drawn with an inhering element of conservatism and aims to highlight only those areas where extremely dense remains of the medieval period were found, and is intended to highlight not only the large areas where this was settled but also the major new dimensions which came about at the site. Many dimensions need to be stressed here, the first of which relates to the manner in which there is a large concentration of materials in the North-Eastern sector which importantly continue beyond it. There is also some evidence for a repair to the fortifications in precisely this zone which may in fact date to this period. This characterization has further been

[34] R.S. Sharma, *Urban Decay in India*

attempted on the basis of the blue-green glazed wares alone, which, while distinctive, are clearly not the most abundant form of the ceramic materials which date to this period. A map was initially prepared which was based upon the evidence from the wares which this survey has argued are co-eval and contemporary to these glazed wares, but as this is still an association suggested/ based only on the basis of this survey and has not been verified by excavation anywhere, this is not presented here and a more conservative approach has been taken. Thus, all but the stray glazed ware occurrence, which is in the extreme east just above the legend in Figure 5-46, and which was found in the midst of a rice-wheat belt otherwise completely devoid of any artefacts, may be taken as a representative of the extent of the medieval occupation at Kausambi. As is clear, a major area, upwards of a 100 Hectares in total was settled, during this phase, which had hitherto not even been described at the site.

This large area came to include a major site outside the ramparts under what is today the village of Kosam Inam. This is also the area which had produced the site of the green glass bangle manufacturing zone and may be considered not just a spillover area but an important component to the site in this period.

The stone fortress presents an important case worthy of consideration as from within its confines no Blue-green glazed wares were recovered, but nonetheless we were able to document the presence of a distinctive group of red slipped wares. It is hoped that a future re-analysis of the ceramics from the extensive investigations at the site which are curated at the Prof. G.R. Sharma Memorial Museum will shed more light about the much disputed occupation of this fort. The stone fortress, nestled in one corner of this large site and overlooking the river and one of its most major crossing points, perhaps speaks most eloquently of the nature in which Kausambi continued to be a site of major relevance in the political economy of the region even as new centres like Kara and then Allahabad rose and eventually came to clearly dominate the regional political formations. It is perhaps possible to presume from the small area of the fortress that it was built for the purposes of a small garrisoned force and was intended to establish some manner of control and equally as a political statement at the site. It also speaks of the manner in which connections, networks and routes, such as that across to the Chitrakut-Banda region, remained extremely important in the efforts and projects of state-making in the later period.

The polygon marked in red to the west of the village of Kosam Inam in Figure 5-46 is the mound of Pali which is abutted on one side by the extensions of the village of Kosam Inam and on the other by a major Muslim graveyard which has some monumental graves which appear to go back a couple of centuries at the least. It is from this location that the survey found a major distribution of the fine

black slipped ware in distinctive bowl forms and additionally of a distinctive red ware which was distinct from that which seemed to accompany the blue-green glazed ware. Additionally, this was the only area of the site where the survey found a fragment of the white-glazed ware. This mound and the possibility of further such distributions in the Kausambi area seem to indicate that the medieval pasts of Kausambi may be far more complex and may testify to a series of shifting re-orientations of the settlement of the site itself. Further, the site of Pali itself was outside of the survey area and was characterized on the basis of a quick survey limited to the range of the visible and mounded area. A more comprehensive survey will probably reveal further dimensions to the medieval occupation of the site.

The Late Medieval and the processes of ruralisation

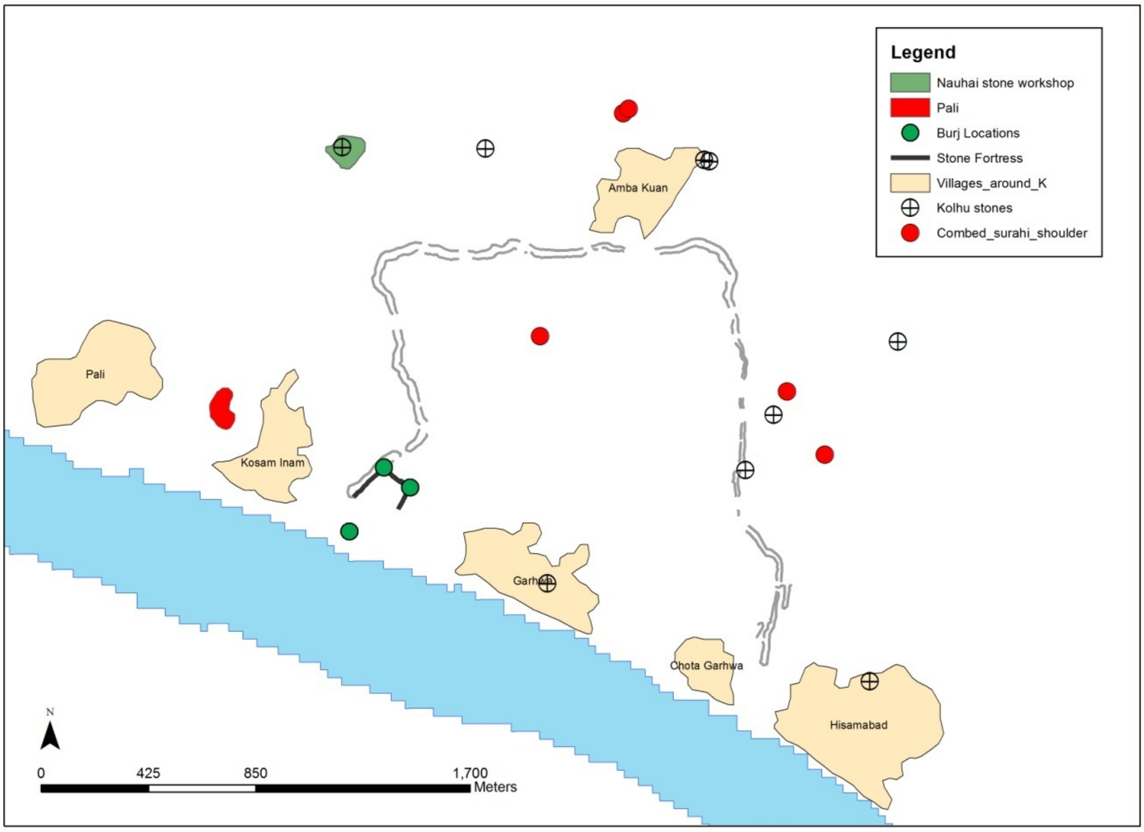


Figure 5-47 The distribution of late medieval remains at Kausambi

The discussion of the late medieval period must be approached from a number of tangential directions. There is a possibility that the Black Slipped ware found at Pali may itself date to the Mughal period, and similar suggestions have also been made about the stone fortress. However, as those issues need further investigation the discussion here focuses upon definite aspects which can be detailed. The first of these concerns the combed red wares which have been described above and suggests on the basis of their unique if very fragmentary distribution that these may be of a type

which succeeds upon previous wares and may represent a late medieval deposit at the site. While this is again a tentative suggestion, the survey was on more concrete grounds when considering the distribution of Kolhu stones. Those which were found inside the present limits of villages were taken as markers of the inhabitation of that village and those outside, depending on general context and surrounding artefacts, seemed to represent either the possible site of on orchard or of fields and thus were taken as signs of ruralisation and the return of once inhabited areas to agrarian land-use.

The production of this narrative and characterization of the long-term dynamics of settlement at the site of Kausambi was the major product of this survey. It has drawn upon many aspects which could not be detailed above and have been synthesized in brief or merely their insights drawn upon. In terms of the manner in which the site and its implications for the history of the region, this engagement with Kausambi has endeavoured to be a definitive re-statement and re-evaluation about the complexity of the site at the present moment and the manner in which it can be studied and new information generated about it. It has additionally stresses that there has been very little re-examination of sites and information about them in Indian archaeology, a need which must be answered if we are to generate information and data which can usefully answer to questions of modelling the processes of socio-cultural change.

Against a still hazily known early or mid Holocene occupation in the region, it is clear that Kausambi emerges in the early period as a considerable riparian settlement. As one of the largest settlements of the Vindhyan Chalcolithic / Kakoria-Koldihwa complex it is clear that Kausambi is set upon a crucial junction between many zones and areas, the relation and constitution of which in this early period it should be a future task to investigate. Kausambi appears as a very strong candidate for being a major site in the region where the NBPW is first developed and produced and it is in the centuries after this that the site witnesses massive and transformative growth which convert this site into one of the few major metropolitan sites of the Ganga basin. This is a transformation which involves the reworking of the very concept of the urban and the political in the societies which witnessed them and is not something which can be easily reduced to simple and general statements. Equally once at a dominant position in the local and regional landscape the site of Kausambi and its immediate hinterland and repeatedly reconstituted and redefined. Urbanism itself is reconstituted in the course of the period which extends possibly as far as uptil the 13th or 14th centuries till when the site was still a major centre. We understand little of the processes by which this major sites comes to become a much smaller living presence in the landscape but this bears a complex and long trajectory with the emergence of other centres and political economies which radiate from them in the region such as Kara and Prayaga. The survey has helped in presenting a more fully considered account of the various settlements at the site and has gone some way in achieving that goal. The

extensive mounds outside the eastern fortifications probably require a survey of an intensity greater than that which was mounted in the course of this survey and this is something which is urgently needed, especially as these mounds are undergoing serious and often annual rates of attenuation and destruction. In the goal of reworking our theoretical and historical accounts towards histories which better present the trends and developments in the emergence of complex societies Kausambi thus presents a fine example of one of the possibilities which was realized at a certain conjuncture in Ganga basin. I have delineated herein the cultural traditions which were at the roots of that development and have tried to problematize and enrich the complexity with which we understand the successive transformations. While the outlines of these processes are clear, the details are not. As future work at Kausambi and other sectors of the Ganga plain document and detail similar specifics, it has been my position that the study of the emergence of complex societies in the Ganga basin shall be served well if we continue to suggest and explore theoretical and conceptual tools which appear to best describe and comprehend the trends. Thus, Kausambi has presented one example and trajectory and it is hoped this shall serve as a useful comparison and point of departure.

Conclusion

This conclusion must begin by way of a number of clarifications. When this study began it initially designed it was framed around the idea of revisiting the extant explanations and theories of Urbanisation. It was for this purpose that I chose to study Kausambi, for two principal reasons: having decided that a survey component would have been a good way to learn and familiarize myself with material cultures this was a region for which already a rich and complex dataset existed and secondly for the simple reason that Allahabad was familiar territory to me and I knew, that even with my limited resources I would be able to work there. The choice of Kausambi was thus not one which was a given especially as Mathura and Ahichattra presented cases which were closer to Delhi. In my attempts to understand Kausambi, I initially had not at all fathomed that the exercise would become into the form in which it has ended. I attribute much of the course of this M.Phil to my quest to try and come to terms with what was defined as Period I of Kausambi and the intense debates which I subsequently tracked and attempted to unravel. The definitive silences which waxed eloquently about the importance of the questions at stake impelled me to consider all possibilities and expanded the question into one which became an inquiry about the settlement patterns of the Ganga Basin. The enormity of the task of compiling and creating the gazetteer and atlas, as well as of trying to synthesize an exhaustive discussion from its trends were exercises I was unprepared for especially as I realised an education in the terms of the meta-narrative had left me quite unprepared for the trends and distributions I encountered. It is this divide that this dissertation and this conclusion seek to answer to.

A central aspect which has informed the study of ancient Indian history is the unilinearity which defines the meta-narrative. I have referred to this at many points of time over the course of this dissertation and I stress it here again. The ancient societies of the Ganga basin cannot be reduced to a single denominator or tradition and this is an essential point of departure which all discussion must begin to address and come to terms with. My discussion here, in chapter three, was informed by dual goals, of trying to parse out and delineate cultural groups and to equally try and inquire into the possible patterns of interaction between regions and their archaeology. In doing so this discussion has admittedly been walking a tight-rope and I fully expect that discoveries and further investigations over the course of the next decade shall qualify and significantly altar much of what has been put forth. Yet despite these qualifications I stress that the picture presented here is one which is wholly incompatible with the key tenets and the governing ideas of the metanarrative. I have stressed and delineated the emergence of a range of regional cultures which undergo

transformations of passing through expansive Integrative era's as well as those of more local and distinctive cultural expressions. The Ganga basin has for long constituted an animated and diversely populated interaction sphere and no privileged concatenation of archaeological cultures can presume to explain the trajectories of the emergence of complex societies in the region and in those which border it.

In this entire exercise which has attempted to disinvest itself of the presiding tropes and the structuring ideas I have deliberately endeavoured to use a theoretical language which to my mind imparts the least degree of connotations of its own upon the data. My intention in this has been primarily guided by the realization that our datasets for these early periods, despite over a hundred years of 'modern' archaeology are extremely inextensive; we have unsure chronologies, incomplete distributions and only the broadest delineations of the multifarious records of cultural change. Yet, even by these qualifications and necessary approximations we can witness a picture, and that is one which is at a considerable distance from the extant metanarrative. It is for these reasons that I have also chosen, deliberately to restrain from trying to characterize the nature of processes, especially those which we term as those of political organization in early societies until we can generate archaeological measures of recording and describing the record with more extensive and intensive detail. Nonetheless there are manifest indicators of the emergence of complexity and of the evolution of settlements in very particular ecologies and circumstances and I have argued that a consideration of these is perhaps the strongest indicators we have at present of modelling and understanding the patterns of change and growth. A greater comprehension of the Interaction sphere which comes into being in the Ganga basin by the year 2000 BCE if not earlier and a delineation of the cultural crosscurrents which animate it is of the greatest need if we are to come to any understanding of the manner in which individuals and communities identified and defined themselves. For this purpose I have attempted to illustrate how the fineware ceramics are perhaps our most consistent indicator of cultural traditions and regions of specificity. Equally however the plain and utilitatrian ceramic traditions show increasing indicators of convergence through the course of this period, a trait whose significance shall require extensive study and investigation if we should hope to understand what these cultures share and how. In this context, the networks of metals and of stones are undoubtedly those which are the most clear records of the manner in which trade and exchange networks cut across these zones and bespeak of further such interconnections which are less apparent at present.

I have argued that in the consideration of the forms of organisation and the structures of the various societies which this discussion has covered that there is dire need of theoretical measures which

hope to bring a longer perspective into consideration. Hitherto, the writing of ancient Indian history has consigned all pre-literate cultures to a status of less than chiefdoms, and archaeology too has failed to generate measures by which it could appropriately answer these questions. I argue here instead for a need to let procedures of description become our keystones and our sources for theory. This is a measure which is born equally out of the vacuum of cross-cultural socio-evolutionist theory at the present revisionist turn but also out of a belief that South Asian material cultures may bear a different relation to social realities than that which can be theorized without attention to these specificities. If anything, the failure of archaeological attempts to come to a consensually ratified characterization of any political form, from the Harappan to the Early historic empires, speaks of a need to reconsider the possibilities. By stressing this I do not mean to reify the idea of any timeless dynamics of South Asian material cultures, but rather I argue here that there is a need to come to generate our own theoretical devices and forms.

It is in this context that I find the repeating existence and centrality of riparian urban settlements a promising possibility. Such sites, are at the intersections of many crossroads, those over land and water, site and networks, itinerance and permanence and are the earliest sites of growth. They link the later periods, when they are the most conspicuous to earlier periods where similar trajectories of growth and change are visible as well. In their unique and deeply historical form I argue that it is important that we begin to reconsider the categories of Urban and Political and disinvest them of the multiple forms if reification that they have undergone. Unless we can devise manners in which we come to terms with the forms and the processes of socio-political organisation and their multiple networks within the societies which exist in the period between 2000 BCE to 600 BCE our characterizations of the subsequent period shall remain faulty and premised upon an incomplete consideration of the evidence. I strongly believe that a range of political and territorial formation did exist and shared overlapping boundaries, elements of material culture and probably underwent divergent trajectories of growth and adversity during this long epoch. Unless we can provide a detailed history of these regional congealed societies as well as the implications and meanings of the Integrative processes such as those represented by the PGW in terms other than the culture-historical frame which is currently provided we shall continue to generalize and misrepresent the actual cultural record. Equally necessary, across all periods is to unpackage and examine what have been taken as Integration era monoliths, and understand that cultural processes are often regional and recognize the complex relationships between them, which may have not been as unidirectional as has been presumed. Regions such as Punjab are perhaps the best examples of the need to do this by having displayed evidence of local cultures with weak but complex records of Integration into both the NBPW and Harappan Integration phases.

While these are relatively more advanced and complex problems which attend the characterisation of the cultural groups which are extant in the Ganga basin there are a much more seemingly simple set of questions equally at work. While my discussion has attempted a redressal and reconsideration of almost all cultures which are known from North India, much of the focus and attention has been on cultures broadly from east of Kanpur, and in particular from the region I have been describing awkwardly as the Vindhya-Ganga region, centred upon Allahabad. This has been admittedly for two reasons; this is a region whose archaeology has come into focus in the last decade after languishing outside the mainstream of historical consideration for long and also because this is the only region where I have field experience and am most familiar with the material culture.

The problems in labelling the cultures of the region are manifold. The hitherto termed 'Vindhyan Neolithic' is now known from at least two sites on the Ganga and it appears that there may be a further distribution to the North. The next period has always had a troubled history being termed the Vindhyan Chalcolithic or the Vindhyan Megalithic has too been a part of the exercises which have denied it its full place in the historical narrative by instead assigning it its part in the culture-historical hierarchy. It is for these reasons that initially I chose to describe it as the Kakoria-Koldihwa complex, which distinguished it form these labels and referred instead only to the type sites. But these type-sites have recently been found to not actually be typical as Malhar and other sites have demonstrated a plentiful record of the production and use of Iron, somewhat problematic for a culture considered 'Chalcolithic'. Further, the judicious silence of the excavator of Musanagar and Dadupar, who has chosen but to label these sites in terms of their principal ceramic assemblages, and in terms of a basal 'Black slipped ware' complex has only raised further questions about the manner in which we actually understand the cultural map of the early Ganga Basin, and the resolution with which we define groups. If not anything else, the exercise of this M.Phil has been to attempt to bring these questions into focus rather than stress and reify and qualify the principal components of the metanarrative and the elements of its construction.

I have stressed the diversity of cultures throughout this dissertation and in conclusion I should like to reaffirm that position albeit with a slightly different target. The weight of the meta-narrative and of the legacy of the question of the Dark Age were such that until quite recently it was anathema to even suggest that there was a possibility of imagining south Asia's ancient pasts without an interlude of the influx of Aryan populations as described by whichever verb was thought to be most suitable. While arguments had long been made against this, the weight of opinion has generally been in the direction of sorting out and re-arranging the messy archaeological evidence in favour of some adjustment which fit the bill. The last fifteen years have seen a dramatic reversal and it is now clear

that the metanarrative is far more heavily premised on this essential fulcrum than it ever had been previously admitted to. Equally, it must be noted that a number of eminent archaeologists, including B.B. Lal[1] whose own work had done so much to establish the early and late Aryan populations in the Ganga Basin have fashioned new narratives and taken new positions which stress continuity. D. K. Chakrabarti's own position has been more complex and has in the past been the only voice which has expressed a position close to the multiplicity of processes and cultures articulated here. In this context the assertion that 'All the people of the subcontinent are, in one way or another, inheritors of the Indus civilization'[2] is somewhat surprising, especially since he has been forthright in admitting to how little we actually know about the Harappan settlement in the Punjab. Lal's position too has been one which stresses the essential 'fact' of continuity, through cultural manifestations in gestures, practices and incidentally also material culture. Lal's essential premise is one which pitches continuity through villages and village traditions and is thus phrased in a discourse of civilization and urbanization.

I argue here that it is important that Indian archaeology move away from tendentious paradigms which have searched in vain for the movement of peoples and their material records. Yet, the reasons and the directions which the formulation of new forms of explanation are based upon should be relevant to the archaeological materials and formulated with an aim of expressing cultural processes of change and complexity which are described and evident. I take the arguments expressed above to be significant in both cases, but some what epiphenomenal and stiff based upon artefacts and not processes, and couched in a language of cultural wholes and not one which inquires into the cultural formations and the historical trajectories of the ancient societies of the Ganga Basin. In the absence of discontinuity, stressing only continuity and its occasional manifestations is perhaps as meaningless as the previous dispensation and it continues to serve to ignore the most important issues.

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Appendix I : Abstract tables of Archaeological distributions by district for the states of Punjab, Haryana, Rajasthan, Madhya Pradesh, Bihar, Chhattisgarh and Jharkhand

Contents

I. Districtwise summary of Archaeological site distributions in the state of Punjab

Code	District	Headquarter(s)	'Pre' Harappan	H	LH	PGW and GW	Early Historic
1	AM	Amritsar		1	3	22	35
2	BR	Barnala					
3	BA	Bathinda	11	14	10	3	32
4	FI	Firozpur	1	1		1	
5	FR	Faridkot	2	2	3	1	
6	FT	Fatehgarh Sahib					
7	GU	Gurdaspur			10	15	32
8	HO	Hoshiarpur			2	4	12
9	JA	Jalandhar		1	12	23	20
10	KA	Kapurthala	2	2	2	7	20
11	LU	Ludhiana	2	4	39	32	33
12	MA	Mansa					
13	MO	Moga					
14	MU	Mukatsar					
15	NS	Nawan Shehar					
16	PA	Patiala		4	37	59	43
17	RU	Rupnagar	2	3	14	47	9
18	??	Mohali					
19	SA	Sangrur	6	5	10	12	13
20	??	Tarn Taran					
Totals			**26**	**37**	**142**	**226**	**249**

II. Districtwise summary of Archaeological site distributions in the state of Haryana

			ESA	Hakra	Pre H	EH	MH	LH	OCP	Bara	PGW GW	BSW	NBPW	SKRW
1	AM	Ambala					7	21	2		27	2	2	
2	BH	Bhiwani			5		5	15		1	1			14
3	FR	Faridabad	1											
4	FT	Fatehabad			2		2	2		1	6			
5	GU	Gurgaon			7			13						
6	HI	Hissar			28		21	26			21			7
7	JH	Jhajjar												
8	JI	Jind			42		9	96			7		2	3
9	KR	Karnal			7	1	7	23			17	1	1	8
10	KT	Kaithal					3				5	2		3
11	KU	Kurukshetra			2		1	59			7		1	1
12	MA	Mahendragarh	Stone tools-1					4						
13	ME	Mewat												
14	PK	Panchkula	Neoliths						2					
15	PP	Panipat												
16	RE	Rewari												
17	RO	Rohtak		3	8	8	10	48			32		1	32
18	SI	Sirsa					1				9	6		16
19	SO	Sonepat			4	12	17	60			63		??	88
20	YN	Yamuna Nagar				1	5	1			12	1	5	4
Totals				**3**	**105**	**22**	**88**	**368**	**4**	**2**	**207**	**12**	**12**	**176**

III. Districtwise summary of Archaeological site distributions in the state of Haryana (Table - II)

			G	**Ely Med**	**Med**	**Rang Mahal**	
1	AM	Ambala		3	27	3	
2	BH	Bhiwani		9	54		
3	FR	Faridabad					
4	FT	Fatehabad		26	95	6	
5	GU	Gurgaon					
6	HI	Hissar		91	93		
7	JH	Jhajjar					
8	JI	Jind				1	
9	KR	Karnal			6		
10	KT	Kaithal			8	5	
11	KU	Kurukshetra			1		
12	MA	Mahendragarh			1T	3	
13	ME	Mewat					
14	PK	Panchkula		8			
15	PP	Panipat			14		
16	RE	Rewari					
17	RO	Rohtak		26	55		
18	SI	Sirsa		86	112	64	
19	SO	Sonepat					
20	YN	Yamuna Nagar			4 + 3 gl		1 Buddhist
Totals				**249**	**465**	**82**	

IV. Districtwise summary of Archaeological site distributions in the state of Rajasthan (Table - I)

Code	District	ESA	MSA	LSA	Mesolithic	Ptd RS	Ahar	Ely Hpn	Mature H	Late H	GJCC
1.	Ajmer	4	4	5	12	4	4				
2.	Alwar	2									
3.	Bikaner				1						
4.	Barmer	1	5		5						
5.	Banswar										
6.	Bharatpur	1				2					
7.	Baran										
8.	Bundi										
9.	Bhilwara	1			19	8	24				
10. CR	Churu										
11. CT	Chittorgarh	27	9		16		41				
12. DA	Dausa										
13. DH	Dholpur				3		2				
14. DU	Dungarpur						6				
15. GA	Ganganagar										
16. HA	Hanuman-nagar							8	29		
17. JJ	Jhunjhunu										

V. Districtwise summary of Archaeological site distributions in the state of Rajasthan (Table – I continued)

Code	District	ESA	MSA	LSA	Mesolithic	Ptd RS	Ahar	Ely Hpn	Mature H	Late H	GJCC
18. JL	Jalore				5						
19. JO	Jodhpur	1	21	2	22						
20. JP	Jaipur	5			14	7	4				11
21. JS	Jaisalmer	4	10		7						1
22. JW	Jhalawar		2		1						
23. KA	Karauli										
24. KO	Kota	3			3	2					
25. NA	Nagaur	16	9	1	8						
26. PA	Pali	3	6		5	3					
27. RA	Rajsamand										
28. SK	Sikar				7						77
29. SM	Sawai Madhopur										
30. SR	Sirohi				1						
31. TO	Tonk	4			5		5				
32. UD	Udaipur	8			26		24				
	Totals	**80**	**66**	**8**	**160**	**26**	**110**	**8**	**29**	**1**	**89**

VI. Districtwise summary of Archaeological site distributions in the state of Rajasthan (Table - II)

Code	District	GJCC	Noh=B&RW	OCP	Copper Hoard	PGW	Megalithic	NBPW	Early Historic	Sunga-K	Kusana	Rang Mahal	Gupta
1.	Ajmer				1	2		1	3			18	1
2.	Alwar				2	1			12		9		
3.	Bikaner				2	? 1+							
4.	Barmer												
5.	Banswar												
6.	Bharatpur		10+?	7	1	63	2	2	33		15		1
7.	Baran												
8.	Bundi				1				4				
9.	Bhilwara						1	1	7	1	1		3
10. CR	Churu												
11. CT	Chittorgarh				1				2				
12. DA	Dausa						2		1				
13. DH	Dholpur					9		1	9				
14. DU	Dungarpur								1				1
15. GA	Ganganagar		1+?			21			4				
16. HA	Hanuman-nagar											70	
17. JJ	Jhunjhunu			7		4		4	4			28	

VII. Districtwise summary of Archaeological site distributions in the state of Rajasthan (Table – II Continued)

Code	District	GJCC	Noh=B&RW	OCP	Copper Hoard	PGW	Megalithic	NBPW	Early Historic	Sunga-K	Kusana	Rang Mahal	Gupta
18. JL	Jalore				1								
19. JO	Jodhpur												
20. JP	Jaipur	11	5+?	36	4	18		3	23	8	13		1
21. JS	Jaisalmer	1											
22. JW	Jhalawar								1				
23. KA	Karauli												
24. KO	Kota								1				1
25. NA	Nagaur				2				1				
26. PA	Pali				1				1				1
27. RA	Rajsamand												
28. SK	Sikar	77		81					3	3		7	
29. SM	Sawai Madhopur			1					1		1		
30. SR	Sirohi				1								
31. TO	Tonk				2	1		2	6		1		
32. UD	Udaipur				1			1	4				1
	Totals	**89**		**132**	**20**	**119**	**5**	**15**	**121**	**12**	**40**	**123**	**10**

VIII. Districtwise summary of Archaeological site distributions in the state of Madhya Pradesh (Table – I)

				ESA	**MSA**	**LSA**	**Microlithic**	**Mesolithic**	**Painted RS**	**Celts / Neoliths**	**Megaliths**	**B&RW Chalc**
1		Alirajpur										
2	AN	Anuppur	Anuppur									
3	AS	Ashoknagar	Ashoknagar									
4	BL	Balaghat	Balaghat			3+				GUNGERIA		
5	BR	Barwani	Barwani									
6	BE	Betul	Betul	3	3						3	
7	BD	Bhind	Bhind				2					
8	BP	Bhopal	Bhopal									
9	BU	Burhanpur	Burhanpur									
10	CT	Chhatarpur	Chhatarpur	9	2	5				1	3 Kotia	
11	CN	Chhindwara	Chhindwara									
12	DM	Damoh	Damoh	1	1							
13	DT	Datia	Datia	2								
14	DE	Dewas	Dewas							1		6
15	DH	Dhar	Dhar	4	7	1 + Ostrich eggshell			2			21
16	DI	Dindori	Dindori	1	1	12	1					
17	GU	Guna	Guna	1	1	1						2
18	GW	Gwalior	Gwalior	3	2	2			3 + compl			
19	HA	Harda	Harda									
20	HO	Hoshangabad	Hoshangabad	6+ Major	2	1			20+ Complexes			
21	IN	Indore	Indore	4	1	10						3
22	JA	Jabalpur	Jabalpur		13	6			1	1		
23	JH	Jhabua	Jhabua									
24	KA	Katni	Katni									

				ESA	MSA	LSA	Microlithic	Mesolithic	Painted RS	Celts / Neoliths	Megaliths	B&RW Chalc
25	EN	Khandwa	(East Nimar)	24	14	60+						
26	WN	Khargone	(West Nimar)	5	1	3				1	1- Chichali	12
27	ML	Mandla	Mandla	10+	5+	10+						
28	MS	Mandsaur	Mandsaur	1	1	1			100+			3
29	MO	Morena	Morena			1						1
30	NA	Narsinghpur	Narsinghpur	6	2	1						
31	NE	Neemuch	Neemuch									
32	PA	Panna	Panna									
33	RE	Rewa	Rewa	4	1	30+	5+	5+	85+	2+	37+	
34	RG	Rajgarh	Rajgarh						60+			
35	RL	Ratlam	Ratlam									1
36	RS	Raisen	Raisen	6+	3+	5+			244+			2
37	SG	Sagar	Sagar	2+	1	1			5+	1		
38	ST	Satna	Satna						1 major complex		2+	
39	SR	Sehore	Sehore	12+	2+	5+			40+			
40	SO	Seoni	Seoni	2	1	1						
41	SH	Shahdol	Shahdol	1		1						
42	SJ	Shajapur	Shajapur	1		1						
43	SP	Sheopur	Sheopur	1	5+	1						
44	SV	Shivpuri	Shivpuri									
45	SI	Sidhi	Sidhi	1	5+	5+		3+	2+	4+	5+	
46	Singrauli											
47	TI	Tikamgarh	Tikamgarh									
48	UJ	Ujjain	Ujjain	1?		1 + Ostrich			1 Complex			28
49	UM	Umaria	Umaria									
50	VI	Vidisha	Vidisha	3+	3	2		1	Many complexes			1
				74	**57**	**50**	**3**	**1**	**3**	**5**	**3**	**80**

IX. Districtwise summary of Archaeological site distributions in the state of Madhya Pradesh (Table – II)

			Kayatha	Ahar	Malwa	Jorwe?	Savalda	CIW	PGW	NBP	Ely hc B&RW
1		Alirajpur									
2	AN	Anuppur									
3	AS	Ashoknagar									
4	BL	Balaghat									
5	BR	Barwani									
6	BE	Betul									
7	BD	Bhind							3	14	13
8	BP	Bhopal									
9	BU	Burhanpur									
10	CT	Chhatarpur									
11	CN	Chhindwara									
12	DM	Damoh									
13	DT	Datia								9	31
14	DE	Dewas	20	2	3					1	1
15	DH	Dhar	2				1				13
16	DI	Dindori									
17	GU	Guna								1	1
18	GW	Gwalior							1	5	6
19	HA	Harda									
20	HO	Hoshangabad									
21	IN	Indore	3	3	3						1
22	JA	Jabalpur								4	1
23	JH	Jhabua									
24	KA	Katni									
25	EN	Khandwa		1	2						38

			Kayatha	**Ahar**	**Malwa**	**Jorwe?**	**Savalda**	**CIW**	**PGW**	**NBP**	**Ely hc B&RW**
26	WN	Khargone		2	2	1			1	1	1
27	ML	Mandla									
28	MS	Mandsaur	1	2	3				fine GW 1	2	2
29	MO	Morena	5		2			1	5	2	1
30	NA	Narsinghpur									
31	NE	Neemuch									
32	PA	Panna									
33	RE	Rewa						3		26 +1ptd	17+
34	RG	Rajgarh								1	
35	RL	Ratlam	1								
36	RS	Raisen		1- Piplya Lorka	3					1	
37	SG	Sagar			2+					1	
38	ST	Satna									
39	SR	Sehore		Nander? Plum RW						1	3
40	SO	Seoni									
41	SH	Shahdol									
42	SJ	Shajapur	4	4	4						4
43	SP	Sheopur			4						
44	SV	Shivpuri									
45	SI	Sidhi								1	
46	Singrauli										
47	TI	Tikamgarh									
48	UJ	Ujjain	7+	5	5+				1	2	87
49	UM	Umaria									
50	VI	Vidisha			1				1	1	1
			36	19	27	1	1	4	12	47	204

X. Districtwise summary of Archaeological site distributions in the state of Madhya Pradesh (Table – III)

			SK	Gupta	Hist	Med	Glazed	Late Hpn	
1		Alirajpur							
2	AN	Anuppur							
3	AS	Ashoknagar							
4	BL	Balaghat							
5	BR	Barwani							
6	BE	Betul				3			
7	BD	Bhind	1	2	2	22		3	
8	BP	Bhopal							
9	BU	Burhanpur							
10	CT	Chhatarpur			15	5			
11	CN	Chhindwara							
12	DM	Damoh		4	2	4			
13	DT	Datia				1			
14	DE	Dewas			1	48			
15	DH	Dhar		3	5	129	2		
16	DI	Dindori				2			
17	GU	Guna	1	1	1	1			
18	GW	Gwalior	1			1			
19	HA	Harda							
20	HO	Hoshangabad				11			
21	IN	Indore							
22	JA	Jabalpur	1	2 Temples		2			
23	JH	Jhabua							
24	KA	Katni							
25	EN	Khandwa		1	1	50+			Iron Smelting sites

			SK	Gupta	Hist	Med	Glazed	Late Hpn	
26	WN	Khargone		1					
27	ML	Mandla				Surveyed no details			
28	MS	Mandsaur		1	1	1			
29	MO	Morena	1	1	12	39	1		
30	NA	Narsinghpur							
31	NE	Neemuch							
32	PA	Panna							
33	RE	Rewa	1	1		15			
34	RG	Rajgarh	1		1	1	1		
35	RL	Ratlam							
36	RS	Raisen			43	58			
37	SG	Sagar							
38	ST	Satna		1					
39	SR	Sehore							
40	SO	Seoni			1	5+			
41	SH	Shahdol			2+	Med S			
42	SJ	Shajapur							
43	SP	Sheopur			7				
44	SV	Shivpuri		1 Temple					
45	SI	Sidhi							
46	Singrauli								
47	TI	Tikamgarh							
48	UJ	Ujjain			67				
49	UM	Umaria							
50	VI	Vidisha	1	1					
			8	17	159	343	4	3	

XI. Districtwise summary of Archaeological site distributions in the state of Bihar (Table – I)

		ESA	MSA	LSA	Mesolithic	Ptd RS	CIW and Neolithic	Celt	Urn burials	B&RW chalc	WpB&RW	WpBSW
1	Araria											
2	Aurangabad											
3	Banka											
4	Begusarai											
5	Bhagalpur	1	1	6						5	1	
6	Bhojpur									1		
7	Buxar									1		
8	Darbhanga									1		
9	East Champaran											
10	Gaya	2	2	1			2		2	8	2	
11	Gopalganj											
12	Jamui											
13	Jehanabad											
14	Kaimur (Bhabua)									1		
15	Katihar											
16	Khagaria											
17	Kishanganj											

		ESA	MSA	LSA	Mesolithic	Ptd RS	CIW and Neolithic	Celt	Urn burials	B&RW chalc	WpB&RW	WpBSW
18	Lakhisarai											
19	Madhepura											
20	Madhubani											
21	Munger	3	2	2	1							
22	Muzaffarpur									13		
23	Nalanda		2					1	1			
24	Nawada		1			14+						
25	Patna						2	2				
26	Purnia											
27	Rohtas			1			4	5		11*		
28	Saharsa											
29	Samastipur						1					
30	Saran							2		4		
31	Sheikhpura											
32	Sheohar											
33	Sitamarhi											pl~1
34	Siwan											
35	Supaul											
36	Vaishali						1	1				2
37	West Champaran								1			
		6	**8**	**10**	**1**		**10**	**11**	**4**	**45**	**3**	**2**

XII. Districtwise summary of Archaeological site distributions in the state of Bihar (Table – II)

		NBPW	SK-RW	G	Ely Med	Med	Fortified city	Bud	
1	Araria								
2	Aurangabad								
3	Banka								
4	Begusarai								
5	Bhagalpur	13	4		2	6	2	2 Med	
6	Bhojpur								
7	Buxar	1	1			1			
8	Darbhanga	2	2		3	1			
9	East Champaran							1	Kesariya
10	Gaya	14	4		2+			4	Bakraur Taradih Gaya
11	Gopalganj								
12	Jamui								
13	Jehanabad				1				
14	Kaimur (Bhabua)	1	1				1		
15	Katihar								
16	Khagaria								
17	Kishanganj								
18	Lakhisarai								
19	Madhepura								
20	Madhubani	1	1		2	2	1		
21	Munger	2	2		4			2	Sarahiyadih and Jaimangalgarh
22	Muzaffarpur	13	3				2	1	
23	Nalanda	2	1					3	

		NBPW	SK-RW	G	Ely Med	Med	Fortified city	Bud	
24	Nawada	2		1	2				
25	Patna	2	2		2			2	
26	Purnia		1			1	1	1	
27	Rohtas	17	13			6+			
28	Saharsa			1	2				
29	Samastipur	2	2						
30	Saran	8	5	2			2		
31	Sheikhpura								
32	Sheohar								
33	Sitamarhi	2+29	54	4					
34	Siwan	2			1				
35	Supaul								
36	Vaishali	4	6	5		4			
37	West Champaran							1	Lauriya Nandangarh
		86	102	13	19	15	9	15	

XIII. Districtwise summary of Archaeological site distributions in the state of Jharkhand (Table – I)

		ESA	MSA	LSA	Mesolithic	Ptd RS	CIW and Neolithic	Celt	Megalithic	Urn burials	B&RW chalc	WpB&RW or WpBSW
1	Bokaro											
2	Chatra											
3	Deoghar	1		1								
4	Dhanbad		1	1								
5	Dumka			15				5			5	
6	Purba Singhbhum	3	3	6				6	4	Dolmenoid Megaliths		
7	Garhwa											
8	Giridih	1			2	40+						
9	Godda											
10	Gumla	5	2	4								
11	Hazaribagh	2	2	3		36+			7			
12	Koderma											
13	Lohardaga											
14	Pakur											
15	Palamu		15	3	1		2	2			1	
16	Ranchi	2	2	8	1			2+	4	1 - Khuntitoli	1?	
17	Sahibganj											
18	Pashchim Singhbhum	3		5			2	4				
		17	25	46	4	76+	4	17	15		6	

XIV. Districtwise summary of Archaeological site distributions in the state of Jharkhand (Table – II)

		NBPW	SK-RW	G	Ely Med	Med	Bud	
1	Bokaro							
2	Chatra							
3	Deoghar							
4	Dhanbad							
5	Dumka							TC Temple complex
6	Purba Singhbhum		1		1	1		
7	Garhwa							
8	Giridih						Rock Sheltar	
9	Godda							
10	Gumla				1T of 12th CE			
11	Hazaribagh			2? Mounds			sculpt Pala	Number of Iron smelting sites
12	Koderma							
13	Lohardaga							
14	Pakur							
15	Palamu	1	1					
16	Ranchi		1~intensive			2		Number of Iron smelting sites with Kushana RW
17	Sahibganj	1		1		1		
18	Pashchim Singhbhum							
		2	**2**	**1**	**1**	**4**		

XV. Districtwise summary of Archaeological site distributions in the state of Chhattisgarh (Table – I)

		ESA	MSA	LSA	Mesolithic	Ptd RS	CIW and Neolithic	Celt	Megalithic complexes	Megalith types	B&RW chalc	WpB&RW or WpBSW
1	Bastar	1	6	100+		6	2	3	5	Cairns, Menhirs		
2	Bijapur		1	2					1			
3	Bilaspur											
4	Dantewada											
5	Dhamtari											
6	Durg					25+			8	Kakrabhat : 800 + burials		
7	Jashpur											
8	Janjgir-Champa											
9	Korba											
10	Koriya											
11	Kanker											
12	Kawardha											
13	Mahasamund											
14	Narayanpur											
15	Raigarh			8		3				Cluster of 700 Menhirs		
16	Rajnandgaon		2	profuse			3				3	
17	Raipur			10+				1	3			
18	Surguja					7						
		1	**9**	**110**		**41+**	**5**	**4**	**17**		**3**	

XVI. Districtwise summary of Archaeological site distributions in the state of Chhattisgarh (Table – II)

		NBPW	SK-RW	G	Ely Med	Med	Fortified city	Bud	
1	Bastar			2 Stupa sites and G pd T, many icons				2 Stupa sites	
2	Bijapur		1	1		1		1	Malhar
3	Bilaspur								
4	Dantewada								
5	Dhamtari								
6	Durg		3			Sculpt and T complex			
7	Jashpur								
8	Janjgir-Champa								
9	Korba								
10	Koriya								
11	Kanker								
12	Kawardha								
13	Mahasamund							Sculpt : Nagarjuna Med	
14	Narayanpur								
15	Raigarh			1	1	2	1-Med		
16	Rajnandgaon								
17	Raipur		1	1	1	2		2	Sirpur
18	Surguja		2	rock cut caves					
			7	3	2	5		3	

Appendix II: Statistical Abstract of the Gazetteer of Archaeological sites for Uttar Pradesh

This gazetteer forms the basis of the Atlas that was created and which forms the basis of the discussions in Chapter 3. The principal sources upon which the data presented here is collated are the following:

All issues of the following periodicals

Indian Archaeology –A Review
Pragdhara: Journal of the U.P. State Archaeological Department, (Volumes 1 through 17)
Purattava
Man and Environment

Additionally the following series of monographs are extremely important for the archaeology of the Ganga plains and were used to build the dataset

Cunningham, Alexander and Archaeological Survey of India. (1972, Original Publication 1871), *Four reports made during the years, 1862-63-64-65* (Delhi,: Indological Book House) 2 v. and other annual reports he published subsequently
Führer, Alois Anton *The Monumental Antiquities and Inscriptions in the North-Western Provinces and Oudh*, (Delhi, Indological Book House, 1969, first published 1891)
Chakrabarti, Dilip K. 2001), *Archaeological geography of the Ganga Plain : the lower and the middle Ganga* (New Delhi Bangalore: Permanent Black ; Distributed by Orient Longman) xix, 307 p.
Chakrabarti, Dilip K. (2005), *The archaeology of the Deccan routes : the ancient routes from the Ganga plain to the Deccan* (New Delhi: Munshiram Manoharlal Publishers) xiv, 174 p.
Chakrabarti, Dilip K. (2007), *Archaeological geography of the Ganga plain : the upper Ganga (Oudh, Rohilkhand, and the Doab)* (New Delhi: Munshiram Manoharlal Publishers) xiv, 245 p
Dallaporta, Annamaria and Lucio Marcato, *Archaeological sites of South Pancala: Data from Archaeological and Literary sources* (Delhi, Manohar, 2005)
Tewari D.P., *Excavations at Saunphari and other explorations in the Ganga Yamuna Doab*

The first set of tables here shall provide a list of the 70 districts of Uttar Pradesh, many of which have been created in the last 15 years. The table is intended to provide a complete list of the polygon like areas which have had to serve as the units by which distributions have been studied as there are no means to being able to resolve the data to any finer resolution. After that a summary Table provided a full list of trends and a key provides an index to the abbreviations used in the table. Subsequently I present a sample of the gazetteer for two districts for a depiction of the manner in which the exercise was conducted. It is unfortunately not possible here to present the whole gazetteer as it could not be finalized within the time-frame of the M.Phil program.

Table of all the constituent district of Uttar Pradesh along with their Headquarters population and Area

S. No.	Code	District	Headquarters	Population (2001)	Area (km sq)
1	AG	Agra	Agra	36,11,301	4,027
2	AL	Aligarh	Aligarh	29,90,388	3,747
3	AH	Allahabad	Allahabad	49,41,510	5,424
4	AN	Ambedkar Nagar	Akbarpur	20,25,373	2,372
5	AU	Auraiya	Auraiya	11,79,496	2,051
6	AZ	Azamgarh	Azamgarh	39,50,808	4,234
7	BD	Badaun	Badaun	30,69,245	5,168
8	BG	Bagpat	Bagpat	11,64,388	1,345
9	BH	Bahraich	Bahraich	23,84,239	5,745
10	BL	Ballia	Ballia	27,52,412	2,981
11	BP	Balrampur	Balrampur	16,84,567	2,925
12	BN	Banda	Banda	15,00,253	4,413
13	BB	Barabanki	Barabanki	26,73,394	3,825
14	BR	Bareilly	Bareilly	35,98,701	4,120
15	BS	Basti	Basti	20,68,922	3,034
16	BI	Bijnor	Bijnor	31,30,586	4,561
17	BU	Bulandshahr	Bulandshahr	29,23,290	3,719
18	CD	Chandauli	Chandauli	16,39,777	2,554
19	CT	Chitrakoot	Chitrakoot	8,00,592	3,202
20	DE	Deoria	Deoria	27,30,376	2,535
21	ET	Etah	Etah	27,88,270	4,446
22	EW	Etawah	Etawah	13,40,031	2,287
23	FZ	Faizabad	Faizabad	20,87,914	2,765
24	FR	Farrukhabad	Fatehgarh	15,77,237	2,279
25	FT	Fatehpur	Fatehpur	23,05,847	4,152
26	FI	Firozabad	Firozabad	20,45,737	2,361
27	GB	Gautam Budh Nagar	NOIDA	11,91,263	1,269
28	GZ	Ghaziabad	Ghaziabad	32,89,540	1,956
29	GP	Ghazipur	Ghazipur	30,49,337	3,377
30	GN	Gonda	Gonda	27,65,754	4,425
31	GR	Gorakhpur	Gorakhpur	37,84,720	3,325
32	HM	Hamirpur	Hamirpur	10,42,374	4,325
33	HR	Hardoi	Hardoi	33,97,414	5,986
34	HT	Mahamaya Nagar	Hathras	13,33,372	1,752
35	JL	Jalaun	Orai	14,55,859	4,565
36	JU	Jaunpur	Jaunpur	39,11,305	4,038
37	JH	Jhansi	Jhansi	17,46,715	5,024
38	JP	Jyotiba Phule Nagar	Amroha	14,99,193	2,321
39	KJ	Kannauj	Kannauj	13,85,227	1,993
40	KD	Kanpur Dehat	Akbarpur	15,84,037	3,143
41	KN	Kanpur Nagar	Kanpur	41,37,489	3,029
42	KS	Kaushambi	Manjhanpur	12,94,937	1,837
43	KU	Kushinagar	Padarauna	28,91,933	2,909
44	LK	Lakhimpur Kheri	Kheri	32,00,137	7,680
45	LA	Lalitpur	Lalitpur	9,77,447	5,039
46	LU	Lucknow	Lucknow	36,81,416	2,528
47	MG	Maharajganj	Maharajganj	21,67,041	2,948
48	MH	Mahoba	Mahoba	7,08,831	2,847

49	MP	Mainpuri	Mainpuri	15,92,875	2,760
50	MT	Mathura	Mathura	20,69,578	3,333
51	MB	Mau	Mau	18,49,294	1,713
52	ME	Meerut	Meerut	30,01,636	2,522
53	MI	Mirzapur	Mirzapur	21,14,852	4,522
54	MO	Moradabad	Moradabad	37,49,630	3,648
55	MU	Muzaffarnagar	Muzaffarnagar	35,41,952	4,008
56	PI	Pilibhit	Pilibhit	16,43,788	3,499
57	PR	Pratapgarh	Pratapgarh	27,27,156	3,717
58	RB	Rae Bareli	Rae Bareli	28,72,204	4,609
59	RA	Rampur	Rampur	19,22,450	2,367
60	SA	Saharanpur	Saharanpur	28,48,152	3,689
61	SK	Sant Kabir Nagar	Khalilabad	14,24,500	1,442
62	SR	Sant Ravidas Nagar	Gyanpur	13,52,056	960
63	SJ	Shahjahanpur	Shahjahanpur	25,49,458	4,575
64	SV	Shravasti	Shravasti	11,75,428	1,126
65	SN	Siddharthnagar	Navgarh	20,38,598	2,751
66	SI	Sitapur	Sitapur	36,16,510	5,743
67	SO	Sonbhadra	Robertsganj	14,63,468	6,788
68	SU	Sultanpur	Sultanpur	31,90,926	4,436
69	UN	Unnao	Unnao	27,00,426	4,558
70	VA	Varanasi	Varanasi	31,47,927	1,578

Table listing the abbreviations and codes used in the exercise above

ESA	Early Stone Age
MSA	Middle Stone Age
LSA	Late Stone Age
Mesolithic	
microliths	Used for any microliths which were described without any clear associations by the investigator and the
ptd RS	Rock Sheltars with pre-historic paintings
dull RW	'Dull Red Ware' which has recently been devised as a new term for describing the Vindhyan early Handmade red wares which appear to be similar to the excavated materials from the Vindhyan Neolithic
CIW	Cord Impressed wares, this term was used alongside other ware categories and was level specific so as to enable a later consideration of trends
post-firing incised	Refers to the Post-firing incised Red wares which have recently been documented from the mid to late second millennium BCE levels of sites like Lahuradewa, Narhan, Malhar, Imlidih Khurd and Jhusi and is increasingly being taken as a diagnostic for this period
Vindhyan chalc	Term used in the manner of the description proposed by J.N. Pal and others for the Kakoria-Koldihwa complex
Megalithic	For all megalithic monument sites
EH	Early Harappan
MH	Mature Harappan
LH	Late Harappan
CopperH	Copper Hoard
OCP	Ochre Coloured Pottery
PGW in E	Painted Gray Ware sites to the East of Kanpur
PGW	Painted Gray Ware
pgwB&RW	Used for coding sites where a Black and Red ware is described as being associated with the Black and Red ware
fine GW	Fine Gray Ware described as being associated with and following upon the PGW, often reported from surveys in the absence of true PGW
BSW East	Fine Black slipped ware of the Eastern complexes in the Sarayupar and Bihar
B&RW early	Black and Red wares which are known to be distributed in the late third millennium BCE and earlier, as best discussed in the context of Lahuradewa
WpB&RW	White painted Black and Red wares
BSW	Black slipped wares which were plain and widely distributed, used as a generic code for associated wares
WpBSW	White painted Black Slipped fine wares; used for the materials in the Sarayupar, Bihar and Vindhyan regions
celt	Polished and Ground stone axes
NBPW	Northern Black Polished Ware
NBPW assoc GW	The Gray ware associated with the Northern Black Polished Ware

SK-RW	The Sunga-Kusana Red Wares
K	Occasionally surveys distinguish and argue that they have recognized diagnostically Kusana red wares
G	Gupta period sites, with the exception of Bhitari, all refer to the presence of sculptural or terracotta art thought to be distinctive
EM	Used to code sites which were reported as early medieval, though the ceramic basis for this remains undefined in all cases and relates usually to the presence of distinctive sculptural art.
Med	Code for all Medieval Red wares as described; Med-S was used for sites which were recorded as bearing Medieval sculptures alone.
Glazed	Refers to the presence of typical Blue-Green Glazed wares
BrickT EM	Brick temples of the Early medieval period (those which were more loosely constrained in date and could be later than the 16^{th} century were coded as BrickT)
Bud	Buddhist sites
Fortified_EH	Fortified Early Historic sites
BpRW	Black painted Red wares which are suspected to be early / related with Harappan and post-Harappan cultures of western Uttar Pradesh, especially as described by Chakrabarti, Dilip K. (2007), *Archaeological geography of the Ganga plain : the upper Ganga (Oudh, Rohilkhand, and the Doab)*
Harappan	Generic Harappan sites, which cannot be attributed to a phase of the complex, especially as described by Chakrabarti, Dilip K. (2007), *Archaeological geography of the Ganga plain : the upper Ganga (Oudh, Rohilkhand, and the Doab)*
Late Historical	'Late Historical' is an alternative term used for describing the medieval period
Iron prod	Iron Production sites

Summary table showing statistical abstract of the trends of the gazetteer for all districts of Uttar Pradesh

Table 1 Tables for the periods from the Early Stone Age through to the early Cord Impressed wares of the Neolithic.

Code	District	Headquarters	ESA	MSA	LSA	Mesolithic	microliths	ptd RS	dull RW	CIW	post-firing incised
1	AG	Agra					2	7			
2	AH	Allahabad				11		4			
3	AL	Aligarh									
4	AN	Ambedkar									
5	AU	Auraiya									
6	AZ	Azamgarh									
7	BB	Barabanki									
8	BD	Budaun									
9	BG	Bagpat									
10	BH	Bahraich									
11	BI	Bijnor									
12	BL	Ballia								2	
13	BN	Banda	4	3	5	2		2			
14	BP	Balrampur									
15	BR	Bareilly									
16	BS	Basti								8	2
17	BU	Bulandshahr									
18	CD	Chandauli			1	2		6		1	1
19	CT	Chitrakoot				4+		3+ also ely hc			
20	DE	Deoria									
21	ET	Etah									
22	EW	Etawah									
23	FI	Firozabad									

Code	District	Headquarters	ESA	MSA	LSA	Mesolithic	microliths	ptd RS	dull RW	CIW	post-firing incised
24	FR	Farrukhabad									
25	FT	Fatehpur									
26	FZ	Faizabad									
27	GB	Gautam Budha Nagar									
28	GN	Gonda									
29	GP	Ghazipur					2				
30	GR	Gorakhpur								2	1
31	GZ	Ghaziabad									
33	HR	Hardoi								1	
34	HT	Mahamaya									
35	JH	Jhansi	4		1						
36	JL	Jalaun									
37	JP	Jyotiba									
38	JU	Jaunpur				25+					
39	KD	Kanpur							5sites with hand made RW		
40	KJ	Kannauj									
41	KN	Kanpur									
42	KS	Kaushambi									
43	KU	Kushinagar									
44	LA	Lalitpur	13+		1						
45	LK	Lakhimpur									
46	LU	Lucknow								2	
47	MB	Mau									
48	ME	Meerut									
49	MG	Maharajganj									
50	MH	Mahoba	1	1	2						

Code	District	Headquarters	ESA	MSA	LSA	Mesolithic	microliths	ptd RS	dull RW	CIW	post-firing incised
51	MI	Mirzapur	3	10	14	17	32	28	2	6	?
52	MO	Moradabad									
53	MP	Mainpuri									
54	MT	Mathura	1	1						1	
55	MU	Muzaffarnagar									
56	PI	Pilibhit									
57	PR	Pratapgarh				200+					
58	RA	Rampur									
59	RB	Rae Bareli									
60	SA	Saharanpur									
61	SI	Sitapur									
62	SJ	Shahjahanpur									
63	SK	Sant									
64	SN	Siddharthnagar									
65	SO	Sonbhadra	2	6	7	Up plc 5		44	1	2	1
66	SR	Sant									
67	SU	Sultanpur									
68	SV	Shravasti									
69	UN	Unnao									
70	VA	Varanasi									

Table 2 From the Chalcolithic diagnostic post-friing incised Red wares to the OCP distributions

Code	Headquarters	post-firing incised	Vindhyan chalc	Megalithic	EH	MH	LH	CopperH	OCP
1	Agra								2
2	Allahabad		27	17+					
3	Aligarh								4
4	Ambedkar								
5	Auraiya								1
6	Azamgarh								
7	Barabanki								
8	Budaun								4
9	Bagpat								
10	Bahraich								
11	Bijnor						2		2
12	Ballia								
13	Banda			5					
14	Balrampur								
15	Bareilly								
16	Basti	2							
17	Bulandshahr								11
18	Chandauli	1	2,3?	Major complexes					
19	Chitrakoot								
20	Deoria								
21	Etah								2
22	Etawah							1	1
23	Firozabad								
24	Farrukhabad								
25	Fatehpur								

Code	Headquarters	post-firing incised	Vindhyan chalc	Megalithic	EH	MH	LH	CopperH	OCP
26	Faizabad								
27	Gautam Budha Nagar								
28	Gonda		pre NBPW 5						
29	Ghazipur								
30	Gorakhpur	1							
31	Ghaziabad								2
33	Hardoi							4	2
34	Mahamaya								
35	Jhansi								
36	Jalaun								
37	Jyotiba								
38	Jaunpur								
39	Kanpur							2	1
40	Kannauj								
41	Kanpur								
42	Kaushambi								
43	Kushinagar								
44	Lalitpur		1?						
45	Lakhimpur								
46	Lucknow								1
47	Mau								
48	Meerut								5
49	Maharajganj								
50	Mahoba								
51	Mirzapur	?	10+	34					
52	Moradabad							1	3
53	Mainpuri								

Code	Headquarters	post-firing incised	Vindhyan chalc	Megalithic	EH	MH	LH	CopperH	OCP
54	Mathura								3
55	Muzaffarnagar								5
56	Pilibhit								
57	Pratapgarh		30+						
58	Rampur								
59	Rae Bareli		3 pre NBP B&RW						
60	Saharanpur								77 overlaps with LH
61	Sitapur								
62	Shahjahanpur							5	4
63	Sant								
64	Siddharthnagar								
65	Sonbhadra	1	7+	18					
66	Sant								
67	Sultanpur								
68	Shravasti		2						
69	Unnao		pre NBPW 1					1	3
70	Varanasi								
									54

Table 3 From the Painted Gray Ware culture to a count of all known distribution of stone celts

S.no	Headquarters	PGW in E	PGW	pgwB&RW	BSW East	fine GW	B&RW early	WpB&RW	BSW	WpBSW	celt
1	Agra		26	3	1						
2	Allahabad	1									
3	Aligarh		18	3	4	1					
4	Ambedkar										
5	Auraiya										
6	Azamgarh						2		16		1
7	Barabanki						1				
8	Budaun		7	4	4						
9	Bagpat										
10	Bahraich										
11	Bijnor		11	2		10					
12	Ballia						16	1	15	2	
13	Banda								2		17
14	Balrampur										
15	Bareilly		7	2	2						
16	Basti	3					32	5+			
17	Bulandshahr		20	5	3	9					
18	Chandauli						10		12		
19	Chitrakoot										3+
20	Deoria	1					1		1		
21	Etah		19	3							
22	Etawah		11	3							
23	Firozabad										
24	Farrukhabad		11								
25	Fatehpur		1	1							8

Code	Headquarters	PGW in E	PGW	pgwB&RW	BSW East	fine GW	B&RW early	WpB&RW	BSW	WpBSW	celt
26	Faizabad	1					1				
27	Gautam Budha Nagar										
28	Gonda						2		3		
29	Ghazipur				16				15		
30	Gorakhpur						28+	1+	1	1	?
31	Ghaziabad		13	3		1					
33	Hardoi		5								
34	Mahamaya										
35	Jhansi										6+ / prod
36	Jalaun										
37	Jyotiba										
38	Jaunpur					3	3		5		
39	Kanpur		52						9		3
40	Kannauj		6								
41	Kanpur										
42	Kaushambi										
43	Kushinagar										
44	Lalitpur						1		1		1
45	Lakhimpur		7								
46	Lucknow		4		1				1		
47	Mau										
48	Meerut		19	3							
49	Maharajganj										
50	Mahoba						5				2 production
51	Mirzapur						14		2		7

Code	Headquarters	PGW in E	PGW	pgwB&RW	BSW East	fine GW	B&RW early	WpB&RW	BSW	WpBSW	celt
52	Moradabad		2								
53	Mainpuri		44	2							
54	Mathura		17	17	8						
55	Muzaffarnagar		23						6		
56	Pilibhit		8								
57	Pratapgarh										
58	Rampur										
59	Rae Bareli					1	11				
60	Saharanpur		38								
61	Sitapur		1								
62	Shahjahanpur		21				5?		1		
63	Sant										
64	Siddharthnagar										
65	Sonbhadra										5
66	Sant										
67	Sultanpur	1							4		
68	Shravasti										
69	Unnao		2				2		3		1
70	Varanasi						10+				
			387								

Table 4 From the NBPW to period reported as Late Historical

S.no	Headquarter(s)	NBPW	NBPW assoc GW	SK-RW	K	G	EM	Med	Glazed	Late Historical
1	Agra	5		11		6	2	5	5	
2	Allahabad	69		93	10	2		12	5	
3	Aligarh	1		6			1	23		
4	Ambedkar									
5	Auraiya			5				6		
6	Azamgarh	17		2		1	2	16		
7	Barabanki	1		1			27	25	6	
8	Budaun			19			2	11	5	
9	Bagpat									
10	Bahraich	1		6		8		28		
11	Bijnor	3	2	20	19		6	53		
12	Ballia	11	2	36		16	6	29		
13	Banda	3		4			1		1	
14	Balrampur									
15	Bareilly	2		11				3	6	
16	Basti	46		110	43	24	18	45		
17	Bulandshahr	1		31+17			18			
18	Chandauli	14		7+4	4	2	7	8		
19	Chitrakoot									
20	Deoria	3					2	54		
21	Etah	14	1	10+2	3	10			2	150
22	Etawah	26		54	3	4				116
23	Firozabad									
24	Farrukhabad	8		18		18		67		

S.no	Headquarter(s)	NBPW	NBPW assoc GW	SK-RW	K	G	EM	Med	Glazed	Late Historical
25	Fatehpur	26		12		3	1+40s	2	5	
26	Faizabad	1		1	1	1	1	1		
27	Gautam Budha Nagar									
28	Gonda	25		92	10	96		141	1	
29	Ghazipur	12		21	2	3	11	6		
30	Gorakhpur	18		11				49	4	
31	Ghaziabad			12			2	7	1	
33	Hardoi	5		17		7	4	39		
34	Mahamaya									
35	Jhansi	3		1			2	1	1	
36	Jalaun									
37	Jyotiba									
38	Jaunpur	25		4	3	1	2	3	1	
39	Kanpur	110		135	6	6	19		2	58
40	Kannauj	16		30		33		77		
41	Kanpur									
42	Kaushambi									
43	Kushinagar									
44	Lalitpur							168		
45	Lakhimpur	10		26				51		
46	Lucknow	25		36			40+	65+		
47	Mau									
48	Meerut	4		28		1	5	49		
49	Maharajganj									
50	Mahoba	3		1				100		
51	Mirzapur	29		29		9	19	174	2	

S.no	Headquarter(s)	NBPW	NBPW assoc GW	SK-RW	K	G	EM	Med	Glazed	Late Historical
52	Moradabad	2		3				2		
53	Mainpuri	35		17	1	1				21
54	Mathura	12		48	10	4	7	3		
55	Muzaffarnagar	8	12	24				35		
56	Pilibhit	7		24		24		26		
57	Pratapgarh	8		5			1	3		
58	Rampur									
59	Rae Bareli	11		32		9	39	20	7	
60	Saharanpur	5		43				56		
61	Sitapur	8		15		15	4	26		
62	Shahjahanpur	31		35		45		88		
63	Sant									
64	Siddharthnagar									
65	Sonbhadra	7			1			108		
66	Sant									
67	Sultanpur	12	30ely hc	82						
68	Shravasti	2		11		1	1			
69	Unnao	9		9		3	13	18	1	
70	Varanasi	11		8		6		12		
		705		1208				1650		

Table 5

S.no	Headquarter(s)	BrickT EM	Fortified_EH	BpRW	Harappan	Late H	Iron prod	Bud
1	Agra							
2	Allahabad		2					1
3	Aligarh	1						
4	Ambedkar							
5	Auraiya							
6	Azamgarh							
7	Barabanki	A few are reported						
8	Budaun		1					
9	Bagpat							
10	Bahraich							
11	Bijnor		1					2
12	Ballia							
13	Banda							
14	Balrampur							
15	Bareilly							2
16	Basti		3					13
17	Bulandshahr				2	5		
18	Chandauli							
19	Chitrakoot							
20	Deoria		3					
21	Etah							
22	Etawah							
23	Firozabad							
24	Farrukhabad							

S.no	Headquarter(s)	BrickT EM	Fortified_EH	BpRW	Harappan	Late H	Iron prod	Bud
25	Fatehpur	5						
26	Faizabad							
27	Gautam Budha Nagar							
28	Gonda	Gahadvala-2						
29	Ghazipur							
30	Gorakhpur							2
31	Ghaziabad			4				
33	Hardoi							
34	Mahamaya							
35	Jhansi							
36	Jalaun							
37	Jyotiba							
38	Jaunpur							
39	Kanpur	13						2stupa + gsculpt
40	Kannauj							
41	Kanpur							
42	Kaushambi							
43	Kushinagar							
44	Lalitpur							
45	Lakhimpur							1
46	Lucknow							
47	Mau							
48	Meerut			1	2	8		
49	Maharajganj							
50	Mahoba						2	
51	Mirzapur							

S.no	Headquarter(s)	BrickT EM	Fortified_EH	BpRW	Harappan	Late H	Iron prod	Bud
52	Moradabad							
53	Mainpuri							
54	Mathura						5	
55	Muzaffarnagar				12	14		
56	Pilibhit							
57	Pratapgarh							
58	Rampur							
59	Rae Bareli	2						2 Brick Stupa
60	Saharanpur				35	99		
61	Sitapur							
62	Shahjahanpur							
63	Sant							
64	Siddharthnagar							
65	Sonbhadra							
66	Sant							
67	Sultanpur	4+						
68	Shravasti	1						4
69	Unnao							1 stupa med
70	Varanasi							1 major
					51	126		

1. Agra

The Archaeological data for Agra district comes principally from a number of small surveys conducted in several regions in short investigations as well as from the steady reportage of chance finds and stray reports. Notable are J.P.Gupta's and B.B.Lal's efforts from the 1950's The former continued to investigate the area and many sites were documented by hum through the 1960's. DV Sharma and VN Prabhakar conducted further explorations in a zone of the district in the late 1990;s again documenting a range of site from the Early Medieval to Rock Shelters which bore paintings. There is additionally a report of Megaliths from the region[1], but I have not included that here as I consider this to have been a complex which has been misunderstood as Megalithic in nature but are actually pastoralist markers and resting points in the landscape. My arguments for this are based upon extensive distributions of very similar complexes known to have these uses even today in the Arangpur Faridabad sector and the Harchandpur Ridge to the South of Delhi.

Despite the wealth of excavated site and a clear chronology which extends back to the second millennium BCE of a network of settled sites, very little at present can be assessed about the settlement patterns of the district. The complex of rock shelters which attracted adornment in the form of paintings suggest a long record of activities which we find very rarely in the otherwise flat alluvial landscapes. The rock shelters have a long and complex use-life but it is indeed possible that they were used as shelters and as places of rest in a pastoral landscape at an early point of time. No record prior to the second millennium BCE has been established but it seems likely that some form of a complex, possibly bearing similarities and connections with the Bagor-related microliths using culture known from neighboring Jaipur and Bharatpur districts may have extended up to the Fatehpur Sikri region. For the PGW region, this area forms a crucial part of the distribution and it is essential that some description of the ceramics and illustrations be published to clarify the matter otherwise the confusion at present shall persist. It does seem likely though that the Noh-Atranjikhera complex would be present in the area. It has also recently been suggested that perhaps there are sites which display some materials similar to the Rang Mahal ceramics in the region.

Excavated sites

Khalaua
Bateshwara
Fatehpur Sikri
Ram Bagh
Mehtab Bagh
Birchabili Tila
Sadhwara

1

Code	1
District	AG
Headquarter(s)	Agra
ESA	0
MSA	0
LSA	0
Mesolithic	0
microliths	2
ptd RS	7
dull RW	0
CIW	0
post-firing incised	0
Vindhyan chalc	0
Megalithic	Reports but disputed and ill understood set of 7 monuments on one hill
EH	0
MH	0
LH	0
CopperH	0
OCP	2
PGW in E	0
PGW	26
pgwB&RW	3

BSW East	1
fine GW	0
B&RW early	0
WpB&RW	0
BSW	0
WpBSW	0
celt	0
NBPW	5
NBPW assoc GW	0
SK-RW	11
K	0
G	6
EM	2
Med	5
Glazed	5
Late Historical	0
BrickT EM	0
Bud	0
Fortified_EH	0
BpRW	0
Harappan	0
Late H	0
Iron prod	0

	1. Bidhauli 2. Ganehspur 3. Kagarol 4. Mukharai	Early Med Sculpts	J.P.Gupta	IAR 1963-64, p . 91, OID
5.	Naraul	Medieval sculpts Tashil Kiraoli	J.P. Gupta	IAR 1963-64, p . 91, OID
	6. Badrauli -- 4 7. Jajauli 8. Patsal 9. Rasilpur	Rock shelter with paintings of deer, bulls and herds with human beings	J.P. Gupta	IAR 1963-64, p . 91, OID
	10. Poiya 11. Renuka 12. Mahuar 13. Noh 14. Bhej 15. Aring 16. Sanketban 17. Sakhitara 18. Bamni Khera	SITES WITH PAINTED GREY AND N. B. P. WARES IN UTTAR PRADESH -Shri B. B. Lai discovered a large number of sites with the Painted Grey Ware and Northern Black Polished Ware; some of them had either and others both..	B.B. Lal Exploration Agra - Mathura	IAR 1955-56
	19. Dak Bungalow at Fatehpur Sikri 20. Tehu	35. STONE BUDDHA-HEAD AND EARLY MEDIEVAL SCULPTURES, DISTRICT AGRA. Shri S. C. Chandra found a stone Buddha-head of the typical mottled Mathura red sandstone (pi. LXXXI B) in an excavated trench near the Dak Bungalow at Fatehpur Sikri and early medieval sculptures at Tehu, a village in Tehsil Etmadpur. From a locality close to the latter site were also recovered a few Kushan coins.	S. C. Chandra	
21.	Khera	Microliths sites, with carnelain, agate and varieties of quartz	S.C. Chandra	IAR 1958-59, p.74, OID
22.	Sauripur	PGW and NBPW	D.P. Agarwala	IAR 1958-59, p.74, OID
	23. Akhbai 24. Beman 25. Geherra-Khurd 26. Karahra 27. Mahuwar	All PGW sites	J.P. Gupta	IAR 1959-60, p.74, OID
28.	Fatehpur-sikri	Rock Sheltars	J.P. Gupta	IAR 1959-60, p.74, OID
29.	Jharauti Kiraoli Tehsil	two painted rock sheltars at Jharauti yielding crude geometrical paintings in red pigment	J.P. Gupta	IAR 1964-65, p 76
	30. Bakanda Khera 31. Vidyapur	PGW	JP Gupta	IAR 1964-65, p76

	Tahsil Kiraoli			OID
32.	Kahlaua	Dt Agra Explored 65-66 by JP Gupta PGW and B&RW 16 km from Agra on Agra- Jagner road Excavation as well, three exploratory soundings on mound known as Gwal Khera by TS Iyengar under YD Sharma lied adjacent to extinct Son-Kheri rivulet 248x148 m x5m height for mound Excavation revealed 3.45 m thick deposit apparently belonging to single period, i.e. PGW and BRW together unlike Atranjikhera and Noh in Both commonest shapes were the dish and the bowl, mud brick platform copper bangle piece Beads of TC and Carnelian TC human head Small ivory disc	JP Gupta	IAR 1965-66, p.42
	Poiya vaman Tahsil Etmadpur	PGW and NBPW	JP Gupta, previously reported by BB Lal	IAR 1965-66, p.41
33.	Gunj	JS Nigam of survey found PGW at Gunj, No NBPW at site	JS Nigam	IAR 1971-72, p.79, OID
34.	Batesvara 75-76	two trenches on fort two outside PGW, pale RW, B&RW, BSW B&RW, BSW by vases RW by vases and squat Dish on stands vases and jars of RW show incised and notched decorations impression of mat and tortoise shell TC discs, marble, bangle, beads TC flesh rubber, pottery hopscotches stone ball, beads of semi-precious stones, bone points fragments of copper and iron objects c14 : 5130+-240 II NBPW and thick GW, BSW, RW pale slipped RW in lesser and gradually disappears much finds detailed III dull RW, SW and few sherds of RPW two TCRW 1st to 6th CE IV red and thick gray black wares bowls, basins, handis, vases, some spouted vessels. From Rajput & sultanate times 6 floors .	JS Nigam of Northern Circle	IAR 1975-76,p.42-43
	35. Bandrauli 36. Madanpura	4 km SW of Fatehpur Sikri ptd RS hunting + Ramayana scenes Kusana brahmi inscription as well		IAR 1976-77, p.48
	Fatehpur Sikri	Excavation 1976-77	ASI	IAR 1976-77, p.48-49
37.	Rambagh	Excavations	ASI	IAR 1976-77, p.49
38.	Rasulpur	Ptd Rock shelter + microlith	ASI	IAR 1976-77, p.48
39.	Tundla Railway crossing	mound 44 km from agra on the agra firozabad mound ely CE through	L.M Wahal	IAR 77-78, p.51

		Med sculpt of 10th CE near Tundla railway crossing, another mound ely hc and medieval vestiges		
40.	Nagal devjit	Poonacha and lakhwani glazed ware copper vessels iron objects L bank of Y 10 km from agra		IAR 78-79, p.101, OID
41.	Metab bagh	Excavations medieval site		IAR 79-80, p72 also IAR 1993-94, p.100-101 Also IAR 1996-97, p.106-107
42.	NANDAN	Kus - G pottery		IAR 1980-81, p.94, OID
	43. Rasulpur 44. Pathsal	Medieval Sculptures		
	45. Dauki 46. Jaigara 47. Mahuwar	PGW and Early Hc RW Jaigara – also has Late med mud fort	Krishan Kumar, registering officer Agra	IAR 1981-82, p.100
48.	Sarwara Khera	PGW RW BPW and glazed	Krishan Kumar, registering officer Agra	IAR 1981-82, p.100
49.	Sadarban	med sculpt	Northern circle	IAR 1981-82, p.100
50.	Fatehpur Sikri	I OCP at fatehpur Sikri II PGW B&RW assoc RW, TC animal, beads, much bone artefacts III RW, BSW, NBPW -- ltd in number IVSK V RW and crackled Glazed ware		IAR 1988-89, p. 76 Previously, IAR 1980-81, p.66-67 IAR 79-80, p71-72 IAR 1981 -82, p.59-66 IAR 1985-86, p.71-75 IAR 1986-87, p.73-75 IAR 1987-88, p.103-105 IAR 77-78, p.51 IAR 78-79, p.53-56
51.	Sultanganj	PGW and GW	CP Singh	IAR 1987-88, p.143
52.	Iradat nagar	B&RW, PGW	CP Singh	IAR 1987-88, p.143
	Hawamahal Fatehpur sikri	Extensive kiln full of ash, lamps and dishes	CP Singh	IAR 1988-89, p. 108, OID
53.	Sonoti	PGW, fine GW, NBPW, BSW, BPW	LM Wahal	IAR 1981-82, p.100

		and glazed ware		
		PGW and Med RW	CP singh	IAR 1988-89, p. 108, OID
54.	Sadhwara	I OCP II PGW , plain GW and RW of same fabric and B&RW III Early HC, few fine NBPW and BSW IV Med Total of 4.35 m Occupational Deposit	ASI	IAR 1991-92, pp. 97-98
55.	Batesar II 72 km SE of Agra	PGW GW RW and BSW Kushan and lakhauri structures Late med Temple complex of 39 Temples Lengthy description of series of mounds	GN Srivastava et al of Agra Circle	IAR 1993-94, p.101-103
56.	Birchabili Tila, Sikri	I c 6th to 8th CE II 9th to 12th CE III 12th to 16th CE IV 16th to 18th CE	Agra Circle	IAR 1999-2000, p.157-169
57.	Chuamahan	9th AD sculpt also 2nd AD Naga	DV Sharma and VN Prabhakar of agra circle	IAR 1999-2000, p.157-169
58.	Imlaoda	Mound -- 9th -10th CE intact decorative panel, 2 temple ruins	DV Sharma and VN Prabhakar of agra circle	IAR 1999-2000, p.157-169
59.	Dura	3 late Mughal Havelis	DV Sharma and VN Prabhakar of agra circle	IAR 1999-2000, p.157-169
60.	Kagarol	9th - 10th CE sculpts	DV Sharma and VN Prabhakar of agra circle	IAR 1999-2000, p.157-169
61.	Sikri	8t to 12th	DV Sharma and VN Prabhakar of agra circle	IAR 1999-2000, p.157-169
62.	Rasulpur	Mound and microliths, med pottery T Lintel	Agra Circle	IAR 2000-01, p.187
63.	Inayatpura	PGW	CP Singh	IAR 1982-83

2. Aligarh

The archaeological landscapes of Aligarh district are known principally through the surveys conducted by R.C. Gaur and others from the Aligarh Muslim University in the early 1960's. This was part of a program of exploration which covered a wider region and included exploration in districts Aligarh, Bulandshahr, Etah and Meerut and eventually culminated in the excavations at the sites of Atranjikhera and Jakhera. G.N. Srivastava, of the Agra Circle of the ASI conducted explorations which established that the region, like most other parts of the Uttar Pradesh plains has an extensive series of Medieval sites and he documented 16 of these. In 1991-1992 it is known that Ramjit and Mohammad Abid of the Aligarh Muslim University have conducted surveys which have located apparently a number of OCP sites. They have published their findings from the two sites of Chandaukha[2] and Keshavpur[3], over the 5 to 7 years, but the details of their surveys are awaited. Very little has been established about the Early historical settlement of the Area.

No sites have been excavated in the district.

Code	3
District	AL
Headquarter(s)	Aligarh
ESA	0
MSA	0
LSA	0
Mesolithic	0
microliths	0
ptd RS	0
dull RW	0
CIW	0
post-firing incised	0
Vindhyan chalc	0
Megalithic	0
EH	0
MH	0
LH	0
CopperH	0
OCP	4
PGW in E	0
PGW	18
pgwB&RW	3
BSW East	4
fine GW	1
B&RW early	0
WpB&RW	0
BSW	0
WpBSW	0
celt	0
NBPW	1
NBPW assoc GW	0
SK-RW	6
K	0
G	0
EM	1
Med	23
Glazed	0
Brick Temples	1

[2] Ramjit and Mohd. Abid, 'Chandaukha – An OCP site in Aligarh District', *Puratattva*, 31, 2000-2001:155-163

[3] Ibid. 'Keshavpur- A unique OCP site of Aligarh District' , *Puratattva*, 37, 2006-2007:226-235

1.	Bharatpur	B&RW and PGW	RC Gaur, AMU	IAR 1962-63, p31
	2. Bajheri 3. Komri 4. Tuskan	PGW	RC Gaur, AMU	IAR 1962-63, p31
	5. Andos 6. Gohan Khera 7. Kalwa 8. Lakhna Sherpur	Ely Hl sites	RC Gaur, AMU	IAR 1962-63, p31
	Gohana Khera (Reported as site 6 above)	PGW (hathras tehsil)	Agra Circle	IAR 1998-99, p.242 OID
9.	Sasni	PGW	RC Gaur	IAR 1962-63, p.31
10.	Tappal	PGW	RC Gaur	IAR 1962-63, p.31
11.	Khera Tahsil Koil	PGW and NBPW	LM Wahal	IAR 1962-63, p.70, OID
12.	Kauriaganj	BK Sinha discovered mound or R bank of Kali Nadi average height of about 3 m area of 50x100m PGW plain GW BSW B&RW plain RW : some SK types from a cultivated field 450m east a spread of OCP another 90m futher SE spread of muslim pottery	BK Sinha	IAR 1965-66, p.84
13.	Hathras Fort	PGW BSW BRW RW-SK Medieval RW	AMU, RC Gaur and MH Hasmi exploration in districts Aligarh, Bulandshahr, Etah and Meerut	IAR 1966-67, p.33-3
14.	Maho hathras Tahsil	PGW BSW RW-SK Medieval	AMU, RC Gaur and MH Hasmi exploration in districts Aligarh, Bulandshahr, Etah and Meerut	IAR 1966-67, p.33-3
15.	Mahawa Iglas Tahsil,	BSW, Medieval wares	AMU, RC Gaur and MH Hasmi exploration in districts Aligarh, Bulandshahr, Etah and Meerut	IAR 1966-67, p.33-34
16.	MADRAK Tahsil Kol / Koil,	GW	AMU, RC Gaur and MH Hasmi exploration in	IAR 1966-67, p.33-34

			districts Aligarh, Bulandshahr, Etah and Meerut	
17.	MURTHAL	OCP? PGW BRW BSW BSW RW-SK Medieval	AMU, RC Gaur and MH Hasmi exploration in districts Aligarh, Bulandshahr, Etah and Meerut	IAR 1966-67, p.33-34
18.	SAIGARH Tahsil Sikandra Rao,	PGW, BSW, RW-SK Medieval	AMU, RC Gaur and MH Hasmi exploration in districts Aligarh, Bulandshahr, Etah and Meerut	IAR 1966-67, p.33-34
19.	VIJAI GARH	Crude PGW, BSW Medieval	AMU, RC Gaur and MH Hasmi exploration in districts Aligarh, Bulandshahr, Etah and Meerut	IAR 1966-67, p.33-34
20.	NAGARIA KHERA	Medieval	AMU, RC Gaur and MH Hasmi exploration in districts Aligarh, Bulandshahr, Etah and Meerut	IAR 1966-67, p.33-34
21.	Hathras Tahsil	16 Med sites	Gn srivastava, agra Circle	IAR 1990-91, p.68-69
22.	Astmadi	10th CE Brick Temple	GN Srivastava, Agra Cirlce	IAR 1990-91, p.68-69
23.	Bajera Khera	PGW akarabad tahsil	Agra Circle	IAR 1998-99, p.242 OID
24.	Chanduakha	OCP	Ramjit and Mohd. Abid, AMU	Ramjit and Mohd. Abid, 'Chandaukha – An OCP site in Aligarh District', *Puratattva*, 31, 2000-2001:155-163
25.	Keshavpur	OCP – apparently with a brick kiln and a burnt brick altar which were exposed in the course of soil quarrying	Ramjit and Mohd. Abid, AMU	Ibid. 'Keshavpur- A unique OCP site of Aligarh District' , *Puratattva*, 37, 2006-2007:226-235

3. Allahabad, Kausambi and 'Sant Ravidas Nagar Bhadohi' Districts

Code	2
District	AH
Headquarter(s)	Allahabad
ESA	0
MSA	0
LSA	0
Mesolithic	11
microliths	0
ptd RS	4
dull RW	0
CIW	0
post-firing incised	0
Vindhyan chalc	27
Megalithic	17+
EH	0
MH	0
LH	0
CopperH	0
OCP	0
PGW in E	1
PGW	0
pgwB&RW	0
BSW East	0
fine GW	0
B&RW early	0
WpB&RW	0
BSW	0
WpBSW	0
celt	0
NBPW	69

NBPW assoc GW	0
SK-RW	93
K	10
G	2
EM	0
Med	12
Glazed	5
Late Historical	0
BrickT EM	0
Bud	1
Fortified_EH	2
BpRW	0
Harappan	0
Late H	0
Iron prod	0

1.	Kausambi	Palace complex : arches: ascribed to 300-600 Palace Complex: phase I analogous to Navdatoli III, Rangpur IIC and III, second phase NBPW.	G.R.Sharma led AU	IAR 1953-54, p .6 IAR 1961-62, pp.52-53 IAR 1962-63, p 32
2.	Sringraur	NBPW	G.R.Sharma led AU	IAR 1961-62, pp.52-53
3.	Lacchagir	NBPW and Early Historic Mound	G.R.Sharma led AU	IAR 1961-62, pp.52-53
4.	Kara	Medieval mound	G.R.Sharma led AU	IAR 1961-62, pp.52-53
5.	Upardaha,	Tahsil Handia	G.R.Sharma led AU	IAR 1961-62, pp.52-53
6.	Panasa	Tahsil Karchana, on river Tons, GW and RW similar to those from early levels of Kausambi	B.B. Misra	IAR 1961-62, pp.52-53
7.	Bara-Acchola	Right bank of Ganga, Tahsil Meja, NBPW and associated RW	G.R.Sharma led AU	IAR 1961-62, pp.52-53

8.	Deoghat,	Ptd Rock Shelters	G.R.Sharma led AU	IAR 1962-63, p.31
9.	Ramgarh	Ptd Rock Shelters	G.R.Sharma led AU	IAR 1962-63, p.31
	10. Kukurhata, 11. Pal-neodhia	Early Historical sites	G.R.Sharma led AU	IAR 1962-63, p. 32
12.	Amilia	Ely Hl site	G.R.Sharma led AU	IAR 1962-63, p 32
	13. Batuabir 14. Hardaun	Both megalithic described as Kotia sites which are on the Gorma	G.R.Sharma led AU	IAR 1963-64, p.39
15.	Exploration 1963-64	Valleys of Dist allahabad Belan Gorama Seoti Tons Tundiari Dist Mirzapur and Rewa Amavani Patawan Jor ka nala ESA Batuabir Kanhaiya hillock Lekhahiya hillock LSA 4 LSA pre pottery 17 Painted Rock Sheltars 2/3	G.R.Sharma led AU	IAR 1963-63, p. 39
16.	Kotia	5 excavated monuments Cists 3 one is a cist within a cairn and fifth a cairn circle pottery associated is a a B&RW, RW, dull-black or GW of thick fabric char types in all 3 wares are: bowl or dish with out-turned rim and flattened base bowl with hollow and solid pedestal sharply carinated cooking vessel knobbed lid medium sized vessel with everted rim large elliptical storage jar bowl with ledged shoulder In absence of culture seq diff to date, but given presence of Iron, must be younger than the Varanasi group therefore 4th to 8th BCE	G.R.Sharma led AU	IAR 1963-64, p 40-41
17.	Mainhai	Salvage small scale operation 2.4 km E of Estn gateway roughly rect on plan as a mound brick robbings brought to light interesting pieces of sculpt 150-50 sq m excavated, 16 walls of baked brick and 2 of stone walls built of huge blocks of stone, the first two courses being set in Iron spigots in square sockets brick constructions: most important a basement 2.135 x 2.39 with rectangular platform,	G.R.Sharma led AU	IAR 1963-64, p. 42

		showed six structural phases Sculptures and palaeography suggested 1st to 4th CE		
18.	Phaphamau	an early historical Site yielding the NBPW	G.R.Sharma led AU	IAR 1963-64, p 39
	19. Bataubir 20. Hardaun 21. Jadipur 22. Kapasi 23. Kondi 24. Koskan Gadha 25. Kundari 26. Lonamati 27. Mando 28. Majhigawan	All Megalithic sites At Harduan, to W of burial site, also a corresponding Megalithic site	G.R.Sharma led AU	IAR 1963-64, p 39
29.	Mayndih Phulpur Tahsil	NBPW and Gupta TC	S.C. Kala	IAR 1958-59, p.74, OID
30.	Diha Karchanna Tahsil	Small medieval head of Visnu, being actively eroded by Ganga	S.C. Kala	IAR 1958-59, p.74, OID
31.	Uchdiha Soraon tahsil	8th century gateway in 5 fragments	S.C. Kala	IAR 1958-59, p.74, OID
32.	Onaur	1 mile square, on deserted bank of G, pottery types published	GRS led AU	IAR 1959-60, p.46-47
33.	Unchadih	Clear traces of fortified habitation, a small scale replica of Kausambi	GRS led AU	IAR 1959-60, p.46-47
	34. Achhola 35. Upraura 36. Sarinkala	Sturdy RW , painted and incised Sometimes GW ~ early levels of K	GRS led AU	IAR 1959-60, p.46-47
37.	Section of Yamuna at Mau	Basal bed rock upwards! detrital formation yielding some ESA tools, describe section of 7 sedimentological units	G.R.Sharma led AU	IAR 1969-70 p35-37
38.	Sites listed separately	extensive description of the exploration for mesolithic sites	G.R.Sharma led AU	IAR 1969-70 p35-37
39.	Koraon	description of many painted rock shelters 25 km SW S and SE of here	G.R.Sharma led AU	IAR 1969-70, p.37
40.	Soraon	Kushan period settlements Bankeylal ji ka Purwa Mau aimma Marakhamai	G.R.Sharma led AU	IAR 1969-70, p. 38
41.	Neolithic sites, Meja	Neolithic sites at Majhiari on the lapari in Meja subdiv	G.R.Sharma led AU	IAR 1970-71, p.35-37
42.	Koldihwa	Koldihwa and LSA		IAR 1971-72, p.42-

		pratapgarh		43
43.	Anand Bhavan campus	Excavated early medieval ceramics	G.R.Sharma led AU	IAR 1972-73, p.26
44.	Paschim Sarira	Kusana pottery NBPW and associated on R bank of Ganga between sirsa and paranipur		IAR 1975-76,p.44-45
45.	Sringaverapura	Lal et al IAR 77-78, p.54-56 Treated in this evaluation as extending from Vindhyan Chalcolithic (not OCP) through Medieval	B.B. Lal and the ASI, Part of the Archaeology of the Ramayana sites Project	IAR 77-78, p.55-56 IAR 78-79, p.57-59 IAR 79-80, p74 IAR 1980-81, p.67-68 IAR 1981 -82, p.66-67
46.	AU, year of 78-79	Chopani Mando Mahagara Mahadaha all at the same time!!!!		IAR 78-79, p.56-56, 59 - 60
47.	Bharadvaj Ashram	three trenches I NBPW GW BSW RW desertion II reoccupied G period	B.B. Lal and the ASI, Part of the Archaeology of the Ramayana sites Project	IAR 78-79, p.56
48.	Au led exploration	Madva Ranipur NBPW in allahabad dist		IAR 1980-81, p.68-69
49.	Belan survey	ESA and MSA		IAR 1985-86, p.75
50.	Neodhia bayalis	Extensive 6 Ha height 3.5 m, Chalcolithic and Iron age site		IAR 1985-86, p.75
51.	Khajuri	Excavated		IAR 1985-86, p.75-77
52.	Bara Pura Samoli Pura Kudara	All Kotia sites all Kudara has a few incised and stamped RW too		IAR 1985-86, p.77
53.	Manigara	3 lithic material Acheulian		
54.	Nibi Kalan	Mesolithic site	VD Mishra et al	IAR 1991-92, p.98
55.	Sarai raja	Extensive NBPW site, on Bakulahi river, in Soraon Subdivision	VD Mishra et al	IAR 1991-92, p.98
56.	Chattanag	2.5 km downstream from Sangam Extensive mound, NBPW to Gupta, TC figurines and Beads	VD Mishra	IAR 1992-93, p.92
57.	Jhusi	From the Vindyan Neolithic through to the 20th century	VD Mishra et al	IAR 1994-95, p.69-71 IAR 1996-97, p.164-170 IAR 1998-99, p.161-167
58.	Janwa	Near Mujra Tank in Bara	AU, VD	IAR 1994-95, p.69-

		tahsil, Ptd RS amongst a whole group of unptd RS	Misra led	71
59.	Mahagaon	Extensive early NBPW sites		
60.	Bhita 95-96	I thin layer of BSW I and II had fine NBPW and BSW	GT Shendey Lucknow circle	IAR 1995-96 p. 74-75
	61. Itara 62. Lonipur 63. Naurdhia 64. Singhpur	All Kotia type sites in Bara sub div of Allahabad district	AU, VD Misra led	IAR 1996-97, p.106-114
65.	Arka Mahabiran	In Manjhanpur Mesolithic	AU, VD Misra led	IAR 1996-97, p.170-171
66.	Dharampur	Pre-NBPW and NBPW , Handia	AU, VD Misra led	IAR 1996-97, p.170-171
67.	Hetapatti Sirohi	Pre-NBPW and NBPW, microliths and Kushana	AU, VD Misra led	IAR 1996-97, p.170-171
68.	Durbasa Ashram	-- Phoolpur -- Pre-NBPW, NBPW, TCRW brick structure	AU, VD Misra led	IAR 1996-97, p.170-171
	69. Mahagaon 70. Mahaniayia Dih / Jalalpur 71. Nibhapur-Piprahi 72. Malkhan 73. Kharagapur 74. Bidaon	All NBPW	AU, VD Misra led	IAR 1996-97, p.170-171
	75. Nibhapur-Piprahi 76. Kharagapur 77. Bhiski 78. Handia 79. Neebi 80. Patshala 81. Upardaha 82. Badara -- phoolpur 83. Kala Kaserua 84. Mahmudabad 85. Ramnathpura (Dihwa) 86. Sudanipur 87. Ummedpur 88. Malak Payagi--Soraon 89. Unch Dih 90. Soraon	All Kushan	AU, VD Misra led	IAR 1996-97, p.170-171
91.	Sujawan Deo area	Mesolithic	AU	IAR 1984-85, p. 92
92.	Bhaidpur	Mesolithic	AU	IAR 1984-85, p. 92

Erdosy's surveys in the doab area of the Allahabad and Kausambi districts

	LATITUDE	LONGITUDE	SITE_NAME	SIZE1	SIZE2	SIZE3	SIZE4
				Pre NBP	Ely NBPW	Late NBPW	SK-RW
93.	25.55972222	81.60361110	Adampur	1.44	1.44	2.31	2.31
94.	25.45722220	81.86138889	Bhardwaj Ashram				
95.	25.49638880	81.89722220	Chilla				
96.	25.42027770	81.83666660	Daryabad				
97.	25.47777770	81.82222220	Draupadi Ghat				
98.	25.44805550	81.85361110	Allahabad Medical College				
99.	25.47694440	81.89944440	Salori				
100.	25.47194440	81.84861110	Tej Bahadur Sapru Hospital				
101.	25.74944440	81.38333330	Ambai Buzurg				1.50
102.	25.43638880	81.39777770	Asadha				2.16
103.	25.35222220	81.48194440	Atarsuiya I			0.95	
104.	25.35500000	81.48166660	Atarsuiya II		1.41	1.41	2.82
105.	25.34861110	81.48222220	Atarsuiya III				2.12
106.	25.74750000	81.34944440	Aureni				4.15
107.	25.39500000	81.41888889	Awana Alampur			1.40	3.79
108.	25.47333330	81.37138880	Bahadurpur	1.62	1.62	1.62	
109.	25.41361110	81.40666660	Bahman Kanti I		1.56	1.56	1.56
110.	25.41388880	81.41027770	Bahman Kanti II				1.80
111.	25.45777770	81.31833330	Baresa			1.08	1.08
112.	25.41277770	81.59305550	Bariawan				3.14
113.	25.73250000	81.26111110	Bherawan				1.60
114.	25.39694440	81.38972220	Bidaon			5.15	5.15
115.	25.38611110	81.40388880	Chak Ailai Niaz			1.32	1.32
116.	25.58833330	81.34638880	Chak Khudaganj	1.92	1.92	1.92	
117.	25.50083333	81.47500000	Chapaohan			1.95	1.95
118.	25.49111110	81.57694440	Chirwa				2.01
119.	25.41111110	81.60000000	Daryapur	1.30	1.30	1.30	1.30
120.	25.51888880	81.46083330	Daryapur Majjhiawan I		1.57	1.57	1.57
121.	25.51861110	81.46166660	Daryapur Majjhiawan II			1.60	1.60
122.	25.40916660	81.58916660	Diha				3.78
123.	25.71972220	81.36555550	Farahampur Kaleswar Mau	0.42	0.42		
124.	25.64583330	81.43555550	Faridpur Parsakhi	1.19	1.19	1.19	1.19
125.	25.43750000	81.53583330	Fazlabad	1.26	1.26	1.26	
126.	25.57666660	81.58083330	Gangsari			2.00	2.00
127.	25.40972220	81.28750000	Garhi				
128.	25.70166660	81.34305550	Kamalpur			1.65	1.65
	25.69888880	81.36916660	Kara	2.80	####	####	####
129.	25.45305550	81.42555550	Karari				
	25.34166660	81.39166660	Kausambi	####	####	####	####
130.	25.34166660	81.37833330	K2	2.00			
131.	25.33750000	81.39694440	K3			####	
132.	25.34805550	81.39833330	K4			4.30	
133.	25.35305550	81.39777770	K5			4.62	6.80

Appendix III: The Ghoshita-Arama

The Ghoshita-arama is one of the most important early Buddhist sites in the Ganga plains but has languished for many years in the lack of full and complete documentation. A major is effort is currently being made by the Department of Ancient Indian History, Culture and Archaeology, at the University of Allahabad to publish a report and this discussion is only meant to serve as an interim documentation and collation of what are disparate publications of various finds from the excavations at the site in the 1950's.The recent study by Aruna Tripathi has no doubt clarified much about the wealth of the sculptural record at the complex but as it is principally an art-historical exercise the present discussion is motivated with the aim of providing a more archaeological discussion.[4] Additionally the Ghoshita-arama presents yet another piece in the South Asian relation between text and archaeology by presenting a case, like those at Rajgir, Nalanda or Vaisali where a Buddhist monastic complex known from textual traditions has been archaeologically identified and traced over an extensive period of time.

The early Buddhist texts, from the tipitaka and particularly the preambles to some of the jataka, repeatedly locate many of the occasions of the Buddha's 'sermons' at Kausambi and further even at the Arama built for him by Ghoshita, a merchant or setthi of the city. Similar tales and legends also relate that two of Ghoshita's friends also built similar residences for the Buddha and that they were named after them. While the Kukkuta-arama may indeed still await us, in the larger archaeological landscape around Kausambi, remarkably an inscription on a stone shaft from the vicinity of Kausambi records a gift of a chattra made towards a statue that already stood in the Badarika-arama.[5] Already we appear to have a picture of two if not more complexes, and the texts do detail

[4] Aruna Tripathi *The Buddhist Art of Kausambi*, (2002, D.K.Printworld, Delhi), Tripathi lists the number of trenches that G.R.Sharma laid at Kausambi and Mainahai, these number in total six and no's IV, V, VI, VII IX, and X are those which refer to the area of the Ghoshita-arama. The main drawback of Tripathi's examination of 3,000 stone sculptures is that of the inability to record context and of trying to place them amidst the 100 odd Ha of Kausambi. While this is impossible for most of the museum collections, Tripathi's publication of which trench of the Ghoshita-Arama excavations certain pieces were retrieved from remains meaningless unless a map of these trenches is produced correlating them to the plan. As a result of this it is impossible to know much with any degree of surety, of the placement of images or even of the monument the stupa railings are associated with, without a further publication or examination of the any excavation records still extant. The only established fact seems to be that after some episode of the destruction of the monastery, or some form of destruction, many of the images are deposited near a drain adjacent to the Hariti shrine, presumably running close to the newly built enclosing wall.

[5] N.G. Majumdar, *Epigraphica Indica*, Vol. XXIV, pp.146-148 describes the inscription found at Hasanpur dating to the year 107 in the reign of the [Magha] King Vaisravana when a merchant by the name of simple Magha, who identified himself as a *Avirudhha Sravaka*, donated a chatra for a staute at the Badarika-arama. Further,

even further more locations in this spread of Buddhist establishments around Kausambi. The example of Ghoshita-arama then provides also on opportunity to move beyond what have been old-fashioned textual and political histories of Buddhism at Kausambi. These for example never tire to stress how this history is one of schisms and dissension, of interventionist emperors and warring factions until the label of being the seat of the mahasanghika's can speak once and for all for all of Kausambi let alone the Ghoshita-arama.

Given the limitations of the evidence as detailed above, the following suggestions about the history of the complex are necessarily limited to a conjectural realm. Yet, even the sketchy details of the structural transformation of the site, the complexity of its location and epigraphic record allow for a viable project of historical reconstruction as attempted below. Certainly, the fact that the Buddhist canon often situate many of the discourses of the Buddha as having taken place at the Ghoshita-arama is suggestive of the significant place it held within the Buddhist sacred landscape. At a smaller scale the site is significantly large and occupies an ambiguous location vis-à-vis the walled city. Its location as being just within the 'ramparts', adjacent to a later 'defensive tower' is illustrative of this. While the relative chronology of the two may be uncertain, it is clear that either way by the builders of one of the two, the choice was made to enclose the stupa and the monastery within the walls of the city.

The implications of this enclosure are neither simple nor plain and clear, as the examples of other extensively excavated cities of the period demonstrate; a variety of monasteries and Buddhist vihara complexes and shrines co-existed with various spaces within cities, both residential and royal. At Sirkap, the evidence seemed to suggest further that certain complexes were more geared to the upasaka community than the lay, whereas Nagarjunakonda described a landscape of active and real sectarian differences, which have been argued to have been manifest in the architectural record.[6] The Ghoshita-arama represents many faces in succession and its significant stupa remains throughout at the heart of the complex. The many episodes of the reconstruction and elaboration of this central and the adjoining apsidal stupa are arguably indicative of how these monuments constituted a community of followers. Further the vihara and the votive stupas are suggestive of

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B.C. Law, *Kausambi in Ancient Literature* is mostly a conflation of these textual accounts and their cross-examination against that of Hsuen-Tsang.

[6] H. Sarkar, *Buddhist Monks and Monasteries of India* provides a review of these and argues for the comprehension of these patterns on grounds of sectarian differences and divergent emphasis in doctrine and praxis.

only one half of the community of Ghoshita-arama, its implication in the landscape of the city as well as its magnitude make it clear that the complex played some role in the religious life of the city's inhabitants as well.

This section shall argue that the Ghoshita-arama community was one that was implicated in religious networks not only of monastic and a local community of lay persons but ones which extended much further. The sculptural art, epigraphic record and material constitution – all together shall be used to argue that the space of the Ghoshita-arama was meaningful in subtle complex and shifting ways to the monastic community. Their interests may have impacted upon and shaped the experience of lay visitors as well but with the introduction of the worship of the free-standing image of Buddha's and Bodhisatvas, it becomes possible to trace in the bare outlines the manner in which the monastic community sought to reconfigure the space of the cloister and redirect spiritual and experiential attention. In a complementary fashion the space of the complex equally becomes a register for the activities and interests of the laity. Additionally, a second argument shall build upon the first and try and review the manner in which the history and the decline of the complex have been viewed.

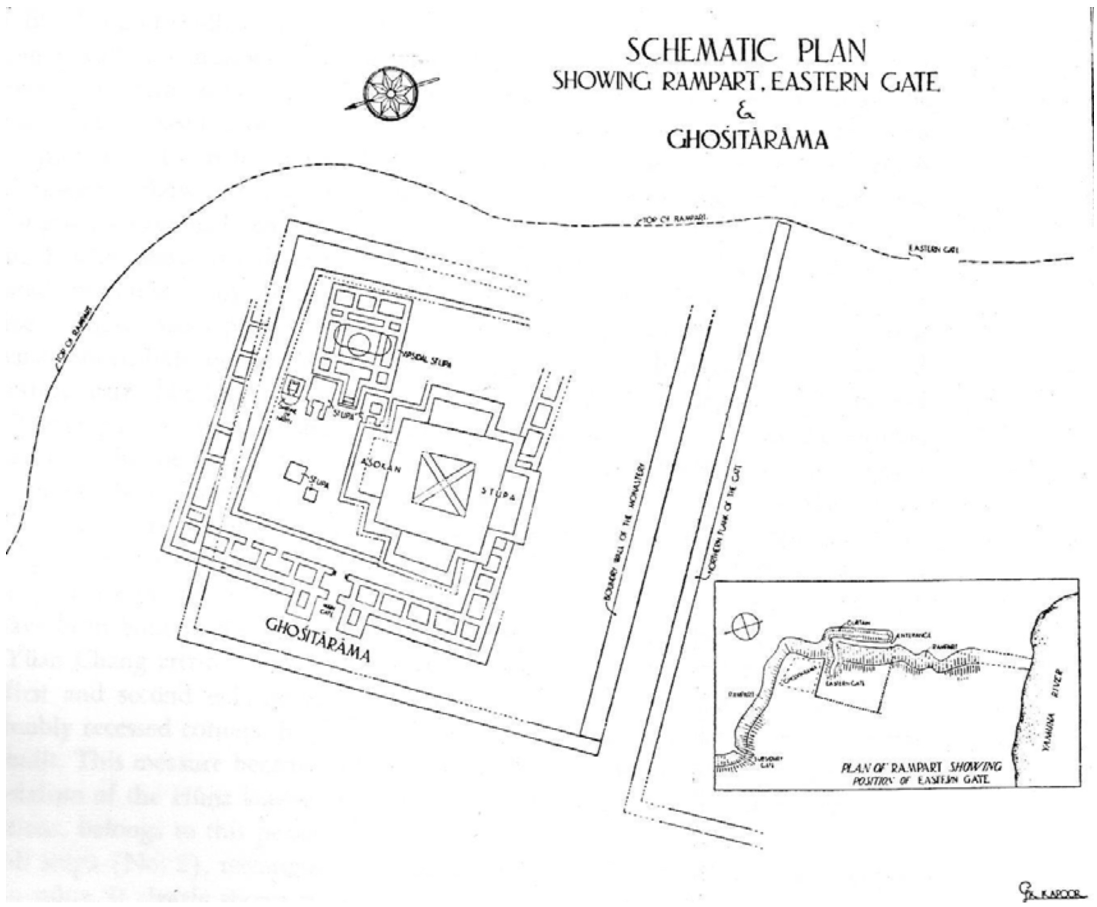


Figure 1: Basic plan of the Ghoshita-Arama and its place within the general layout of the Eastern sector of the city of Kausambi.

The excavations revealed that the packing of the central stupa, contained a massive concentration of the NBPW which led the excavator to argue that its construction could be attributed as by Hsuen-Tsang to the credit of Asoka. The brief reports additionally mention that the plan of the first six levels is impossible to determine, given a period of abandonment and even destruction that attended and was 'just prior to the sixth structural phase'. Thus we are at a disadvantage in trying to establish how the monastic space evolved given that its beginnings are now lost. Yet it seems that the central stupa was foundational and as with many other cases may have afforded many rulers, Asoka perhaps being one of the most deliberate and concerned with posterity, to make acts of piety as paths to symbolic capital and legitimacy.[7] The stupa does not appear to have been cased with

[7] No inscription of Asoka has been found at the site of Kausambi. John Irwin had argued in 1979 that the pillar at the Allahabad fort had not been transported there by Akbar or anyone else but had always stood there. The arguments are not entirely persuasive but do raise doubts about its original placement. If ever at the site, there seems to have been no place for it within the Ghoshita-arama. It is also pertinent to mention that the other pillar at the site of Kausambi bears no Asokan inscription either. The reasonably numerous finds of terracotta pillars with bases and the location of Mainahai, where a sculptural workshop is said to have existed and a palm-leaf capital was unearthed seems to suggest a picture of greater complexity. About Mainahai in the absence of any publication of debitage of production processes it remains somewhat unclear whether it was a

stone, but a plinth was raised around it, as was a platform built around an early apsidal 'stupa'. This latter stupa seems to have held a special significance and the structure was at some point within the first few centuries of the existence of the complex rebuilt as an 'apsidal stupa shrine' of sorts above a platform, whereupon a circumambulatory path was lined by a number of cells. A *gandhakuti* is referred to in epigraphs; both amongst those found at the site as well as at Bharhut and may have been located in a two-celled structure located to the south of the 'apsidal stupa shrine'. It is in the space bracketed on two sides by these two early centres of gravity that the central courtyard of the complex is located.

Another such larger context within which the Ghoshita-arama chalks out its own character is arguably recorded in the manner in which patronage and interests inform the selection and constitution of the railing which is provided for the main stupa.[8] As at all the large complexes of Sanchi, Sarnath and Bharhut the circumambulatory path around the monumental stupa is provided with a railing of harnika and vedika, which provide a space closed off and focussed upon the purpose of contemplation and veneration of the stupa. These railing pillars and their art are collectively records of what patrons, from nuns to queens and from householders to the sangha itself have found most fit and appropriate in their vision to be placed in the path and in the vision of devotees. As has been argued, narrative panels often find frequent site here because of the role of *bhanakas* or specialist reciter monks who would use the panel and its art as stimulus. As has been demonstrated, these are not mere depictions of the Buddhist tales as we know them from texts. These are in parallel, and in the praxis of these tales constitute a dialogic tradition, equally constitute as contesting whatever particular redactions of this larger universe that have survived to our day on

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ruined and much disturbed religious complex at a distance of 2 miles from the gateway the Ghoshita-arama was located at or whether it was a production site for stone pillars – monoliths as well for stupa- ralings. On the question of Asoka, the arguments about K.R. Norman and John Irwin have made it reasonably clear that the processing of inscribing the edicts themselves suggest that Asoka was often using pre-existing pillars and thus participating in an existing culture. The terracottas, and the adoration of pillars on the stupa railings from the Ghoshita-arama suggest another facet of the same. Additionally one may mention the pillar inscription in early Brahmi from the recently discovered stupa-monastery complex of Duer Kothar, which records how three persons, all upasaks caused a pillar to be raised. For summary statements of both see G. Pollet (ed.) *India and the Ancient World: History, Trade and Culture before AD 650* (1987, Department Orietalistiek, Leiden). Chapter by Norman entitled 'The Inscribing of Asoka's Pillar edicts'

[8] Sharma provides no details as to the architectural organization of the stupa railing nor does he describe which stupa of the complex these railings belonged to. Given the nature of he complex and the visualizations of stupas amongst these panels themselves it seems likely and probable that they belonged to the central stupa. As with most other stupa railings, the orthography of the few votive inscriptions seems to have been the criteria for the grouping on the basis of design and style into periods of Sunga and Sunga-Kusana, no matter how irrelevant they might be for the Ghoshita-arama.

birchbark.[9] It is in continuation of this argument that this paper argues that the sculptural art of the Ghoshita-arama is meaningfully constituted, it records even in its fragments, a vision and a set of choices as made to engender the same.

The panels at the Ghoshita-arama are significant moreover for their near complete disinterest in the narrative. No panel, save this one depicted to the left perhaps, is deliberately providing the visual stimulus for an episode of the life of the Buddha, or for one of the Jataka stories. This is heightened by the manner in which, the few pillars at nearby seem to bear such panels and that further one of the largest corpus of these is available at Bharhut, with whose art the Ghoshita-arama familiarly shares some motifs. The most common motifs stress objects of worship and ritual. Thus the pillars bear repeated depictions of stupa's, pillars, 'gaja-laksmi' figures and yaksha's. The only medallions are small and contrite, on the miniature uprights of a coping stone and speak more to the initiated rather than attempting to draw and focus attention upon themselves.



[9] H.P.Ray, 'The Parallel Tradition: Early Buddhist Narrative Sculpture' *Bulletin of the Deccan College Research Institute*, Vol. 54-55, 1994-95, pp.349-355







Figures above all from the excavation of the Ghoshita-arama, note the repeated lion-pillar motif, as well as the Gaja-laksmi on the plant issuing from the purna-ghata, as well as the depiction of the stupa.

The contrast with other stupa railings is complicated and heightened in some measure by the relative paucity of votive inscriptions on these pillars as considered against other such early and





large complexes. The only fragmentary inscribed panels are again those which represent either a devotee or what has surmised to have been a possible rendition of the scene of the birth of the Buddha (adjacent, with the tree and subsequent lion-capital pillar at Lumbini).










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The effect is also carried into a corpus of pillars from the site for which the respective museum collections have no record of their provenance. It is probably unlikely that in a city as large as Kausambi, known to have been the site of more than one large monastery, that any significant number of them belong to the Ghoshita-arama. Yet, despite this, they seem only to reify the trends of those from the complex. Of these eight depicted above, the range is again focussed narrowly upon yakshas and yakshi, one of the latter who is possibly standing in front of a shrine. Panels continue to emphasize the worship and significance of stupa, pillars as well as bodhi-ghara's. The second panel in the bottom row seems to depict a naga figure. Similarly the winged-lion motif was something that had a place in the wider world of sacred imagery.

Given that most art-historical chronologies would place the bulk of these prior to the introduction and influx of Buddha and Bodhisattva statues into the courtyard it appears safe to locate the construction of the railing prior to and coming to an end near the time of the Buddhapada tablet of Phagula and his contemporaries in their stupas. If the repeated focus of these panels is any testimony, the vision of the community was at that time shaping their complex to be one which emphasized the praxis of a few chosen aspects of early Buddhist rituals. If the monastery had come to be around a monument, now the monument was being made theirs. The alliterative emphasis on the stupa and its worship, through its repeated depiction, through its enlargement by plinth and railing and ultimately through dedication of the self at its footstep speak for the manner in which Buddhism was adopted and realized in the first few centuries of the Ghoshita-arama.



An additional unit which is an important part of the compound yet suggestive of different



connections is what Sharma identified as the shrine of Hariti. This small diminutive apsidal shrine, located at one corner near the vihara and the 'apsidal stupa shrine' yielded three interesting terracottas, distinguished in size and quality from most at the site. The shrine's chronology is ill-described but seems to either have existed prior to he installation of these later terracottas or was built alongside them in a later period. In either case the shrine seems to occupy and represent a different constituency within the complex. The shrine afforded its own lifecycle within that of the complex as evidenced by the replacement of its terracottas.

While G.R. Sharma was not incorrect in hypothesizing the pair of idols which were presumably part of the worship at the shrine to be Kubera and Hariti, such a narrow identification with a given norm is perhaps unlikely, especially given the other contemporaneous trends at the site. Yet it is the idea of placing this element of the complex within the larger sacred landscape of the site that appears to be promising. The shrine is marginal to the organisation of centres of attention in the complex. This would appear to be not dis-similar to the place of other local elements at other monasteries, although exceptionally at some complexes such elements such as locally venerated nagas are given considerably prominent location as well.



It is following soon upon this, in levels prior to those associated with a pot which records the single word of 'Bhadramagha', not implausibly the contemporary King at Kausambi and more visible than any other, that the next phase of structural expansion

comes about.[10] It is in this phase of constructions that the cloister comes to define and surround the complex. A vihara is constructed, either out of materials more permanent than those used before or as an addition and expansion and transform what seems to have been a more open and accessible landscape into an enclosed, concentrated location. The stupa and the shrine are now very much within the monastery and a gateway built into the walls of the vihara only serves to accentuate this new demarcation of space. The experience of the visitor to the complex is thus now transformed. In the case of an upasaka, this would have been all the more marked as the walls of the vihara fundamentally altered the experience of the space of the entire complex. From without, the vision of the complex was hindered but once within the monastic space it was now heightened and refocused. It is pointless speculating what sort of changes in the monastic community attended this transformation; it is perhaps only parsimonious to presume a complex set of impulses of change and continuity as well as maybe expansion which were informing this major redesigning rather than a large singular act of patronage or even sectarian conflict as traditional models may assume.[11]

It is at these levels, bracketed by the construction of the vihara and the second transformative episode of raising the massive boundary walls that a number of social and religious visualizations and conceptualisations of the space of the complex come to be realized and layered upon one another. The most important of these seems to have been the dedication of votive stupa by many a person, in remembrance of a departed bhikkhu or even upasaka. These are amongst the most poignant of the communities inscriptions of faith within the complex. While G.R. Sharma failed to report the plans or organisation of most of these, the available plan does mark out the place occupied by the three largest ones. G. R. Sharma seems to have excavated the core of all of these modest stupa and the un-described reliquary found within one is reported as having borne the

[10] Bhadramagha's reign at Kausambi in the period through the decade of the 120's CE is well established by the frequent finds of his coins as well as 5 dated inscriptions, made in a variety of religious contexts dated by the donors with reference to the year of his reign. It must be stressed though that despite the publication of the find of this pot, neither a photograph of the pot nor that of the inscription was ever published. All the more no information is available about the context of this pot within the Ghoshita-arama and thus many categories of significant information have either been lost or remain unpublished. The possible significance of these details lie in how outside of the north-western region, the gift of small ritual items to monasteries by kings is not a very common practice and may relate to other dimensions of such links in the Ganga valley in addition to the obvious points already raised.

[11] After this we are told little but that many buildings of the complex received a coat of plaster soon after. To specify, the vihara and the veranda are said to have been built in the 8th phase, the plaster dates to the 9th, Bhadramagha to the 11th – noted by the excavator as the phase of 'maximum growth' without further details. It is after Bhadramagha that in the 13th phase the massive boundary walls are raised.

following inscription: "Upasakasa Nadikasa Saka Layakasa mAtu MitrlA".[12] Sharma adds "It appears that ordinary monks were memorialized by the erection of small pillars, their relics buried in earthen pots in the floors adjoining the small stupas".[13] While early Buddhist mortuary landscapes are often known to have been similarly clustered in the shade of monuments to which they clearly lie in fealty the extent and complexity of this can only now be hinted at. Connected with this same level is one of the series of epigraphs which give the name of the complex. This is the buddhapada ayagapatta / slab which again records a monastic vision of a gift to the complex. The Bhikkhu Phagula who donates this, introduces himself as is customary, as the student *amtevasisa* of Dhara. Its purpose in the mind of Phagula is 'sava-BudhAnAm pujAye', the worship of all the Buddhas.[14]



It is thus in these levels of the last centuries before and the first centuries after the Christian era that the emphasis on the community seems to have rested upon certain specific notions of the praxis of Buddhism. The mortuary landscape which saturates the courtyard seems to define an act which was considered not only pious but bore great resonance amongst the community, many of whom chose to be buried there. The vihara was built and inhabited by some such people and others like Phagula participated in wider notions about how the Buddha should be worshipped and attempted to help other inhabitants and visitors to the courtyard in that endeavour.

The complex then enters a phase where a rapid set of changes and it becomes amongst the earliest of sites to be the stage for the shifts in focus and attention occur quite drastically. The introduction of the Buddha image, for long a rubric of much debate, opinion today generally follows Gregory Schopen and agrees in that it was monks and nuns who played the strategic and pivotal early role in

[12] Sharma writes about this inscription that "[it] was recovered from inside a stupa together with ashes inside an earthen pot." Other stratigraphically connected epigraphs are said to bear the names Saka, Juvasaka and Ujhaka – which are taken by Sharma as evidence of a Saka ethnic presence. Sharma marks pillars on his plan which seem to indicate just such structures but we are told nothing about the numbers, nor of the contents of the pots.

[13] *IAR 1953-54*, pp.9.

[14] EI, vol. XXXIV, pp.14 – 16, Edited by A.Ghosh

bringing about this fundamental reorganisation of Buddhist diurnal ritual and praxis.[15] Some of the earliest images across North India, by epigraphic roots and understanding of artistic trees growing from these seem to be concentrated in the early Kusana era, in particular in the first few years of the reign of Kaniska.

Amongst these the episodic and unusually visible interjection of the travelling monk and his disciple the nun Buddhamitra have often been commented upon. It is now becoming clear that beginning from Mathura within a year of Kaniska's accession, this trio of Buddhists donated what seem to have



been amongst the earliest inscribed Buddha images at a number of sites in the Ganga valley. Buddhamitra travelled alone to Kausambi, it would appear and her images, in the Mathura sandstone are distinctive and were known from Kausambi even prior to the excavations of the Ghoshita-arama. The discovery of another such image from within the courtyard however stresses the extent of the intervention and illustrates the places that the Ghoshita-arama was considered amongst on a circuit of Buddhist sites. While the inscriptions seem to have been largely standardised amongst this group of donors, as well as their images, it is the imagining that is also significant. Buddhamitra says in all three of her Kausambi images: "Bodhisattvo pratishtapito Bhagvato Buddhasya *camkkame*".[16] It is the last word that is important, the sacredness of the space is defined anew. The mortuary landscape which related to the stupas in its own way, now are layered by a conception of this same space which is valorised as being amongst those which the Buddha had too experienced and used for meditation. Additionally the word is understood as bearing a second meaning, one that comes to stand for precisely such a space in a monastic complex, a somewhat more open vista in the midst of the cloister.

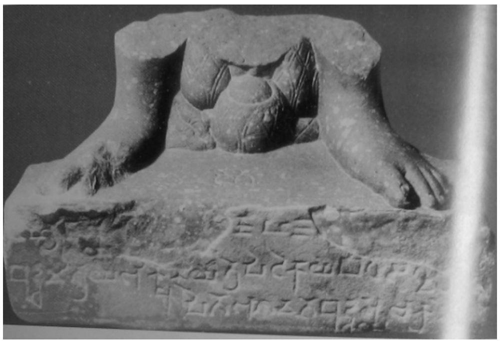
It is at levels which date broadly to this period and those subsequent to it that a number of images are added to the courtyard of the Ghoshita-arama. It appears that at least seven such statues were

[15] G. Schopen, 'On Monks, Nuns and 'Vulgar practices': The Introduction of the image cult into Indian Buddhism' *Artibus Asiae*, Vol. 49, Nos (1/2) 1988-89, pp. 153 – 168. See his table of dates and lay and monastic as well as gender division of donors.

[16] Schopen 'Vulgar Practices' p. 159

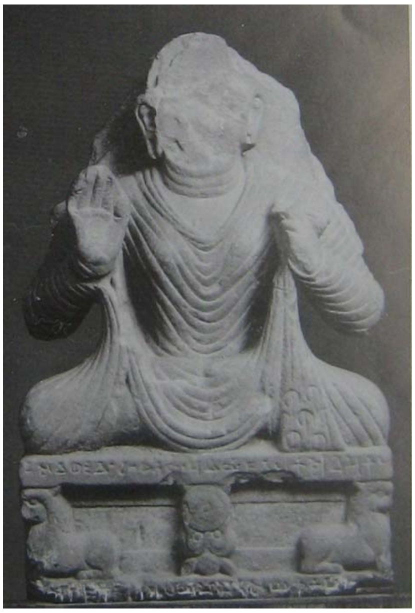
added to the cloister, thus clearly indicating the adoption of new practices and new conceptions of Buddhist rituals.[17] While the Buddhamitra element may have been intrusive the manner in which such trends are augmented and adhered to by the local community is testimony to the connections which inflect Buddhism at the Ghoshita-arama in particular and in general as well.













[17] It is difficult to estimate how many images were dedicated within the complex as almost all were subsequently vandalized and destroyed. Comparisons and tentative correlation of the incomplete fragments as well as a count of independent and unique pedestals suggests that the figure was a minimum of 7 from within the complex, Sharma reporting 4 others in the nearby trenches towards the gateway.

A partial gallery of images added to the Ghoshita-arama at these Kusana-Magha levels. The first 2 images are those donated by Buddhamitra, the inscribed pedestal being one of two such destroyed images unearthed at the Ghoshita-arama. The adjacent image is one of the latest in the group and like the one below it represents a well known development to the slab sculpted in high relief with the accompanying Vidhyadharas and worshippers. Proceeding clockwise, the last two images are first the more or less complete image dedicated in the year 83 under the reign of Bhadramagha (AD 161) by Juvasaka and Ujhaka. The final slab is a fragmentary piece showing only a flanking devotee from yet another image.It appears by the beginning of the Gupta period the complex may already have been donated upto 17 images of the Budhha / Bodhisatva.

Having addressed these issues of parallel and concurrent and shifting interests which appear to have shaped and structured the manner in which the complex was organized it is also important to come to consider how and why this vibrant exercise comes to change. The question of decline was graphically spelt out for G.R. Sharma in the destruction of the complex and the defacement of most of the images. The massive boundary wall that he excavated seemed to him to have been an answer, albeit futile to these possibilities of sack. The idea of conquest was so firmly entrenched for the archaeology of Kausambi in general and that of Ghoshita-arama in particular that all that was needed was a perpetrator. For the episode of the first desertion / destruction, Sharma initially seems to not have considered it of much significance, passing it over. After the synthesis of all his work on the intrusive Bactrian arrowheads (an argument taken from Marshall’s Taxila) the discovery of the Reh inscription of Menander led G.R. Sharma to postulate an invasion not only of Kausambi, but of the Ganga plains from Hastinapura to Pataliputra at the hands of the self-same Menander. Given this, the find of a seal of the Ghosita-arama which was in some manner counter-struck as to include the fact of the overrule of Toramana constituted hard proof of whose hands he final destruction had come at. Given these methodological leaps of fate, it is perhaps best to stress the inappropriateness of the anxiety of political narrative which animates all of this. Instead, while the fact of a sack is clear, Sharma’s own excavations do suggest other dimensions to the process by which the Ghoshita-arama was transformed and eventually did not continue to do so and survive.

The transformations of levels 13 through 16 are challenging and suggestive. The large vihara which hitherto had defined the courtyard is destroyed and a massive wall is built on top of its remains. While two large new stupa are also added towards the rear the sacred space of the site emphasizes

neither the living nor dead of its community, but continues to attempt to engage them with sculptural donation. Instead, the architectural choices bespeak of an emphasis again upon the central monuments and shrines while no doubt continuing to focus attention on the images as well. This may at some level be a formal statement of what is known about the shift towards more elaborate and regulated rituals and conducted worship within Buddhist complexes and associated with the coincident rise of the Buddhist temple proper at other sites. Interestingly, the only late epigraph is that of an elaborate terracotta lamp in the shape of a lotus to the *gandhuakuti* of the Ghoshita-arama. The praxis of Buddhism at the complex is changing again and the reorganisation of space may arguably reflect that.

The different order of engagement with the community may also be a manifestation of its withering. Buddhist numerology, always fond of fixed figures, still informs the magnificent discourses of the Chinese pilgrims. Their texts on Kausambi, are constituted by two important rhetoric, firstly those of the past wonders which were still miraculously on display. These are made only all the more adbhuta by the overpowering narratives of loss and retreat, which their faith faces in the dwindling, patron less and under populated monasteries they visit.



The following page and the adjacent image provide examples of the many images (minimum of 23) which were added to the complex in the Gupta and post-Gupta period. These images of various Bodhisatvas, come to define and articulate a new and different sense of style than those of the previous era, most notably defining themselves by a new manner of presenting the upper torso, with 'diaphanous' or 'transparent' gowns. Many pedestals of this period seem to be those for the padmapani bodhisattva, the tiger-tooth flanking the dharmacarka amulet on the torso of the first image in the third row allows for an identification as a Manjusri. The image adjacent to that is one in the dharmacakrapravartana mudra and the one above it is in the Bhumisparsa. The all too frequent dedication of images seems to have brought at least some part of the process of their manufacture to the complex itself, as can

be seen in the incomplete image as visible in the 4th image of the first row.










In summary, this section has tried to demonstrate that the configuration and organization of the space of a Buddhist complex and the investment of emotion and material within has significant relations to the manner in which the community which constituted the complex understood and practised their faith. The archaeological record of these energies is far from being detailed, and their interpretation is by no means an exercise with any certainty whatsoever. Despite this it is evident that for many reasons the people or sets of people who thought the Ghoshita-Arama to be their own transformed the space they had inherited from their predecessors. The history of Buddhism at Kausambi has been one that has been obsessively interested in the textual account of how a schism, or rather as understood as *the* schism in *the* sangha, originated at Kausambi. A text-based history further informs us of the sandalwood image of the Buddha in Udayana's palace, of an assembly that must be called to tide the schism over and thus constructs a history for the place predicated upon and returning to the fact that the Buddha had preached there. An archaeological consideration of one courtyard demonstrates that in many senses all those who visited the *cankkame* at the Ghoshita-arama were doing, in many ways, like the Buddha who they believed to have been there, what he had done: practicing their shared faith in the ways they knew best. The courtyard and the monuments of the Ghoshita-arama present us with a rich and congealed record of the shifting and changing understandings of lay and monastic communities with their religious pasts and presents. The world outside of the Ghoshita-arama no doubt impinged upon all of this as well in a manner both too complex and subtle than can be described.